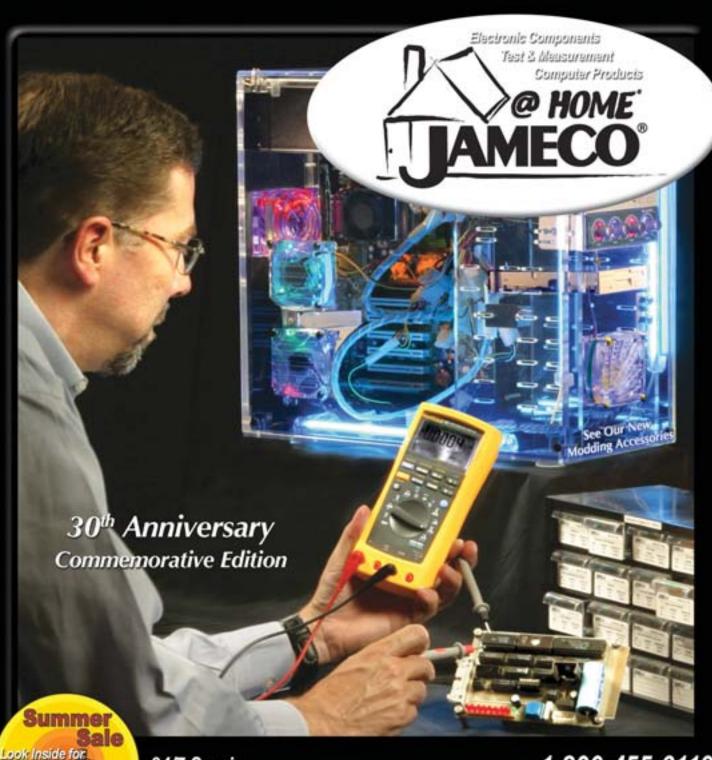
# The #1 Source of Electronic Components for Inventors, Hobbyists & DIYers



24/7 Service 99% In-Stock Low Price Guarantee

Savings up to

1-800-455-6119 www.Jameco.com

Summer 2004 Volume 643

# Wireless freedom, RF reliability, NEW rechargeable convenience!

Looking for the perfect desktop mouse? Memorex has engineered this 5-button gem to combine the mostrequested features into one brilliant product. USB and PS/2 connectivity makes installation a snap. Three of the buttons are programmable to simplify repetitive tasks, and the RF link and optical laser tracking technology ensure precise cursor control within a six-foot range. And when you're not working, the included desktop dock keeps the rechargeable batteries topped-off and ready for your next session!

Part No.	Description	Price
265447EX	Wireless RF ontical mouse	\$29.95



#### Turn your mild-mannered PC into "SuperMod"!



More modding products on pages 74-75

You'll be the life of the LAN party with this see-through sensation! Why settle for a small side window, when you can show off every square inch of your PC's interior? Kit assembly is easy (and fun!), and the result is an eye-catching desktop masterpiece in clear acrylic. There's plenty of space for your gear: five exposed 5.25" drive bays, seven 3.5" drive bays (two exposed), and five 80mm fan positions. Add your power supply, ATX motherboard, drives, custom lighting, cabling and fans, and you'll be the proud owner of the most unique and classy PC ever!

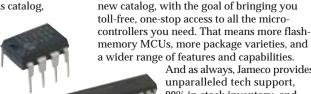
Part No.	Description	Price
285448EX	ATX clear acrylic computer case	\$84.95

We'll continue adding new MCUs with each

#### Take Your PIC! Announcing the Broadest Line of Microcontrollers We've Ever Offered!

You asked for more PIC MCUs, and we heard you loud and clear! In this catalog,

we've added 150 more microcontrollers from Microchip, the #1 MCU supplier in the world. Our experts have improved this newly-expanded area to provide a versatile foundation for your designs. including the most-needed components with the mostrequested features!



And as always, Jameco provides unparalleled tech support, 99% in-stock inventory, and our low-price guarantee to ensure that our customers always get the best deal on the best products.

HDTV/Digital/Analog

## Receive the best in antennas, from Jameco and Channel Master!

In this catalog, Jameco launches an all-new section of high-performance, commercial-grade antennas and accessories from the premier manufacturer in the field, Channel Master!

Our HDTV/Digital/Analog Antenna meets your changing reception needs by providing outstanding performance for both digital and analog broadcast signals. The FM Dipole Antenna is perfect for FM Dx'ers and audiophiles, with the gain and directivity to pull in marginal stations for pure, clear stereo sound. For less-demanding applications, our VHF dipole "rabbit ears" antenna packs sensitivity and quality into an easy-to-install solution!



# Note to self: Don't pass up these sleek, versatile USB

voice recorders!

Stop your shopping, you've found the perfect digital recorders for meetings, classes, interviews, conference calls or any number of other applications. They're pocket-sized, and feature sound-activated recording, auto-search, and highly visible LCD and LED status displays. There are two models to choose from: 285499EX records up to 4 hours (LP) of audio, filed in 396 separate messages; 237198EX records up to 18 hours (LP) filed in

237198EX 396 separate messages (see page 68 for details). Complete in the package, you get an external microphone, earphone, telephone adaptor, PC software and USB cable. Even the batteries (2 AAAs) are included!

Part No.	Description	Price
285499EX	Digital USB voice recorder, 2-4 hrs	\$89.95
237198EX	Digital USB voice recorder, 9-18 hrs	129.95

#### The perfect solution for DIYers, hobbyists and inventors.



TELLER

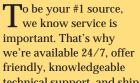
Jameco is proud to now offer NTE's top replacement components. Each NTE component is designed to replace many industry standards, including some that are hard-to-find. NTE components are ideal for a variety of design and repair applications, and with their wide operating specifications, there is less chance of encountering incompatibilities with other devices. The bottom line: less frustration, time saved, products repaired.

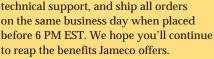


As an authorized NTE franchise distributor, we now have a direct line to this outstanding provider of high quality, broad tolerance products. Go to pages 10-12 for a selection of logic and linear ICs, voltage regulators, varistors, LEDs, transistors, rectifiers, diodes, thermal fuses and more.

And if you don't find what you're looking for, be sure to visit www.Jameco.com and look for our complete line of NTE products.

## Service Is Key!







# Order this lightbulb kit, and watch a kid's eyes light up!

Junior scientists can walk in the footsteps of Edison with this hands-on educational kit. The invention of the light bulb revolutionized the world, and recreating the great inventor's thought process could spark a life-long interest in science and technology.

The included booklet and kit components provide a complete learning experience, from basic electricity to the effects of vacuum and different filament materials.

Whether as a gift or as the basis of a prize-winning Science Fair presentation, this kit is the perfect choice for "bright" kids! Plus, the refurbishment pack (available separately) includes all materials needed to reuse the kit, again and again!

Part No.	Description	Price
285595EX	Build your own lightbulb kit	\$54.95
285616EX	Refurbishment pack for kit	14.49



Attention teachers and group leaders: Multi-packs of this kit are available for classroom use, complete with a valuable teacher's guide. Call today for details and special pricing!

# See detailed Product Index on pages 100 & 101

Integrated Circuits	5-12
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@ Home Products......95-97

Order Form, Info & Product Index.....98-101

#### **PRICES**

Prices are effective 7-12-04 Prices and discounts are subject to change without notice.

#### Flashing LED American Flag

This old glory is attractive with or without the 12 flashing blue and red LEDs which simulate a flying flag. Magnetic clip attaches to the pocket or lapel of your shirt without creating a hole in your clothing.

Part No.	Description	Price
286969EX	Flashing flag (1.2"W x 0.8"H)	\$3.99



# Jameco Celebrates It's 30th Anniversary!

Jameco Electronics first started it's electronic distribution business in August 1974. Dennis Farrey named it after his son James and dedicated himself to bringing customers great values in electronic components.

30 years later, we're still committed to being your number one source of



Dennis, James & Jake Farrey

electronic components for the inventor, hobbyist and DIYer. Much has changed in that time, but we still hold to the same virtues we first established. The committment to provide you with a wide selection of quality products, the best prices and great service. In fact, you'll find over 1,400 new products just added to our web site at <a href="https://www.Jameco.com">www.Jameco.com</a>.

James has since grown up and is the Sales Manager for Jameco. He is dedicated and highly motivated to satisfy all of our customer's needs. He now has his own son, Jake, and is preparing to instill the same values and sense of commitment his father taught him. Yes, technology has significantly changed in the last 30 years, but the Farrey family continues to march to the consistent beat of value and commitment.

At Jameco our goal is to provide you with more of what you want at unbeatable prices. Let us know how we can better serve your electronic component needs as an inventor, hobbyist or DIYer. Please send requests to <a href="https://example.com/AtHome@Jameco.com">AtHome@Jameco.com</a>.

#### Summer Sale—It's Too Hot To Miss!

Interested in saving 15 to 46% off our already low prices? While supplies last, we're offering these dramatic discounts on many of our @Home products. So whether you want to install home automation equipment or purchase binoculars and electronic compasses for your summertime hiking, be sure to thumb through this catalog. To find these substantially discounted items, just look for the Summer Sale mark throughout this catalog. Each includes the amount you'll save off our already low prices.

#### @ Home's Latest Additions

We continue to expand our offering into new areas. Are you planning to invest in High-Definition Television (HDTV)? Did you know most HDTV signals are broadcast via the airwaves rather than by cable or satellite? Look on page 62 for Channel Master's





superior performance Advantage line of antennas. Then ensure great reception with high-quality Belden coax and F connectors on page 63. We just expanded our selection of modding products as well! Now you can purchase a clear case to show off your cool electronics artwork. Looking to illuminate your

fans without replacing them? Be sure to check out our new LED lit fan grills on page 74.



#### Just-in-time stocking only at Jameco.

Take advantage of our "just in time" fast delivery. Only Jameco has stocking levels that guarantee 99% in-stock availability! Call any weekday before 6:00 PM EST, and you can be assured you will have it the next day.

#### Don't get frustrated... find it at Jameco!

Come to Jameco for popular electronic components, computer products, test equipment, and our latest selection of products for your home and personal use; all at unbeatable prices. You can also find those elusive and frustratingly hard-to-find items, and even some out-of-production parts, too! Join the multitudes of happy Jameco customers...
You'll be glad you did.

The Color Code Legend... For easy reference we have included this color code legend on every page.

Find New Products Quickly... Look for the part numbers in magenta.

Save on Sale Items!... Sale products are highlighted in yellow and orange, so you can identify items whose prices have been reduced in all quantities.



Part No.	Product No.	Perm	Description	1	18
	7400	38.	Charle 2 Hard, MrHD (Mrt &		
4309	1907	14	Sand Pirpat NOR gate No. Inserter CO4000		н
44701	7404	14	No marter EXAMIN	19	21

COLOR CODE LEGEND...

NEW SALE REFURBISHED CLOSEOUT

Last Chance Opportunities... Unfortunately we're not always able to restock certain products. In this case we'll print blue part numbers, so if we know there's limited stock, you'll also know.

Part No. Product No. 155643 DC603F1

Hard-to-Find Products... Some products are no longer produced, and yet we know you need them. That's why we occasionally offer pulled or refurbished products. Pulled part numbers are clearly printed in purple and refurbished in brown. Each is backed by our standard Jameco warranty.

#### Jameco's Price Reductions are Substantial...

Rest assured your savings are not just numerous.

They're significant too! Look for former prices slashed out to the left.

 Part No.
 Description
 1
 10
 25

 199718EA
 83-key PS/2
 \$49.95
 \$44.95
 \$38.95

 114868EA
 84-key AT
 \$49.95
 \$44.95
 38.95



Product No.

#### Jameco's Low-Price Guarantee

We'll match the print advertised price of any like product. It's that simple!

#### Our Low Price Guarantee Doesn't Get Much Use...

... And we like it that way. We take our Low-Price Guarantee seriously, so we search around the world to identify the sources for the lowest prices for our high-quality products. In fact, we have a team of people dedicated to making sure we have the lowest prices available.

## The Jameco Advantage...

#### **Low-Price Commitment**

We'll match the printed advertised price of any like product. It's that simple.

#### **Around-the-Clock Ordering**

You can call us at 1-800-455-6119 24x7x365 to place your order. Or visit us on the web at www.Jameco.com.

Same Day Shipping & Always In-Stock

99% of orders placed by 6 PM EST are shipped the same day, and 99% of our items are in-stock!

#### **Help Avoid Duplicate Catalogs**

While we don't intend to send multiple catalogs to the same person, on occasion we do make mistakes. If you're incorrectly receiving multiple catalogs, please visit our web site at <a href="www.Jameco.com/DupCats">www.Jameco.com/DupCats</a> and we'll remove the duplicates. Alternatively, you can mail the duplicate back-covers to us:

Jameco Electronics - Duplicate Catalogs - 1355 Shoreway Rd., Belmont, CA 94002

#### **Contact Information**

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#### **Technical Support**

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E-mail: <a href="mailto:custservice@Jameco.com">custservice@Jameco.com</a>

#### **Credit Department**

Phone: 650-592-8097 E-mail: <u>credit@Jameco.com</u>

#### **International Toll-Free Fax Numbers**

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#### Refer a Friend

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We'd be happy to send them a catalog too!

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Call for pricing on quantities over 100 – we carry major manufacturers. We will special order any IC – \$100 Minimum Order

EPROM				More @ www.Jameco.	com/IC	
Part No.	Cross Ref.	Pins	Descrip	tion	1	10
39909EX	2708	24	1k x 8	8kB	450ns (±5V, +12V)\$4.95	\$4.25
40002EX	2716	24	2k x 8	16kB	450ns (25V) 3.99	3.59
39706EX	27C16	24	2k x 8	16kB	450ns (25V) CMOS 7.25	6.55
40011EX	2716-1	24	2k x 8	16kB	350ns (25V) 6.49	5.89
114876EX	2732B	24	4k x 8	32kB	450ns (12.5V) 4.15	3.75
33591EX	TMS2532A	24	4k x 8	32kB	450ns (21V) 3.95	3.55
40096EX	2732	24	4k x 8	32kB	450ns (25V) 6.49	5.49
40133EX	2732A-45	24	4k x 8	32kB	450ns (21V)	3.69
39765EX	27C32	24	4k x 8	32kB	450ns (25V) CMOS <b>5.49</b>	4.15
40125EX	2732A-25	24	4k x 8	32kB	250ns (21V) 4.99	4.49
40109EX 40192EX	2732A-20 2764-20	24	4k x 8	32kB 64kB	200ns (21V) 6.49	5.99 4.75
		28	8k x 8		200ns (21V)	4.75
40205EX 40230EX	2764-25 2764A-20	28 28	8k x 8 8k x 8	64kB 64kB	250ns (21V) 5.25	4.75
40230EX 40248EX	2764A-25	28	8k x 8	64kB	200ns (12.5V)	3.15
105304EX	27C64-12	28	8k x 8	64kB	120ns (12.5V) CMOS 6.49	5.99
39829EX	27C64-12 27C64-15	28	8k x 8	64kB	150ns (12.5V) CMOS 3.79	3.49
74608EX	27C64-13	28	8k x 8	64kB	200ns (12.5V) CMOS 4.69	4.29
39845EX	27C64-25	28	8k x 8	64kB	250ns (12.5V) CMOS 4.49	4.09
39933EX	27128-25	28	16k x 8	128kB	250ns (21V) 5.95	5.09
39984EX	27128-25 27128A-25	28	16k x 8	128kB	250ns (12.5V) 4.49	4.05
39685EX	27120A-25 27C128-25	28	16k x 8	128kB	250ns (12.5V) CMOS 3.99	3.59
39968EX	27128A-20	28	16k x 8	128kB	200ns (12.5V) 4.69	4.19
101101EX	27C128-20	28	16k x 8	128kB	200ns (12.5V) CMOS 4.69	4.29
39950EX	27128A-15	28	16k x 8	128kB	150ns (12.5V) 4.49	3.95
87935EX	27C128-12	28	16k x 8	128kB	120ns (12.5V) CMOS 4.49	3.99
39677EX	27C128-15	28	16k x 8	128kB	150ns (12.5V) CMOS 4.29	3.85
40037EX	27256-15	28	32k x 8	256kB	150ns (12.5V) 3.25	3.09
39722EX	27C256-20	28	32k x 8	256kB	200ns (12.5V) CMOS 2.59	2.49
39731EX	27C256-25	28	32k x 8	256kB	250ns (12.5V) CMOS 3.15	2.95
140476EX	27C256-70	28	32k x 8	256kB	70ns (12.5V) CMOS 3.59	3.39
112740EX	27C256-10	28	32k x 8	256kB	100ns (12.5V) CMOS 3.35	3.15
65904EX	27C256-12	28	32k x 8	256kB	120ns (12.5V) CMOS 2.05	1.90
39714EX	27C256-15	28	32k x 8	256kB	150ns (12.5V) CMOS 2.05	1.75
40168EX	27512-25	28	64k x 8	512kB	250ns (12.5V) 3.79	3.45
131959EX	27C512-10	28	64k x 8	512kB	100ns (12.5V) CMOS 3.39	3.15
39773EX	27C512-12	28	64k x 8	512kB	120ns (12.5V) CMOS 2.09	1.79
39781EX	27C512-15	28	64k x 8	512kB	150ns (12.5V) CMOS 2.09	1.99
39790EX	27C512-20	28	64k x 8	512kB	200ns (12.5V) CMOS 3.15	2.95
39802EX	27C512-25	28	64k x 8	512kB	250ns (12.5V) CMOS 4.75	4.39
203617EX	27C512-45	28	64k x 8	512kB	45ns (12.5V) CMOS 4.09	3.79
203625EX	27C512-70	28	64k x 8	512kB	70ns (12.5V) CMOS 2.89	2.49
175206EX	27C512-90	28	64k x 8	512kB	90ns (12.5V) CMOS 3.45	3.25
118148EX	27C1024-15	40	64k x 16	1024kB	150ns (12.5V) CMOS5.95	5.55
39651EX	27C010-15	32	128k x 8	1024kB	150ns (12.5V) CMOS 2.59	2.19
74624EX	27C010-12	32	128k x 8	1024kB	120ns (12.5V) CMOS 3.59	3.19
39669EX	27C010-20	32	128k x 8	1024kB	200ns (12.5V) CMOS 2.39	2.29
146149EX	27C010-70	32	128k x 8	1024kB	70ns (12.5V) CMOS 2.39	2.15
78852EX	27C020-12	32	256k x 8	2048kB	120ns (12.5V) CMOS 5.29	4.89
65699EX	27C020-15		256k x 8	2048kB	150ns (12.5V) CMOS 5.29	4.99
127933EX	27C4096-12	40	256k x 16	4096kB	120ns (12.5V) CMOS 9.22	8.60
111780EX	27C040-10	32	512k x 8	4096kB	100ns (12.5V) CMOS 6.92	6.41
102293EX	27C040-12		512k x 8	4096kB	120ns (12.5V) CMOS 6.59	6.09
85462EX	27C040-15		512k x 8	4096kB	150ns (12.5V) CMOS 6.59	6.09
203668EX	27C040-45	32	512k x 8	4096kB	45ns (12.5V) CMOS 12.65	10.75
203684EX	27C080-90	32	1M x 8	8192kB	90ns (12.5V) CMOS 12.91	11.99
156275EX	27C080-10	32	1M x 8	8192kB	100ns (12.5V) CMOS 12.91	10.97
140003EX	27C080-12	32	1M x 8	8192kB	120ns (12.5V) CMOS 12.99	11.99
	270140 10	42	2M x 8	16384kB	100ns (12.5V) CMOS 20.45	18.95
156283EX	27C160-10	42	ZIVI X O	1000 IKD	100113 (12.54) 614105 20.43	

Part No.	Cross Ref.	Description 1	5
66042EX	DE1	UVP portable EPROM eraser, pg 43\$54.95	\$49.95
15712EX	DE4	8-chip UV-EPROM eraser, pg 43 119.95	109.95

<b>EEPRO</b>	IVI			More @ www.Jameco.	com/IC
Part No.	Cross Ref.	Pins	Description	on 1	10
108847EX	24C04P	8	512 x 8	4096-bit serial (CMOS) \$.89	\$.79
74691EX	28C16A-25	24	2k x 8	16k 250ns (5V) CMOS 3.99	3.69
74827EX	28C64A-25	28	8k x 8	64k 250ns (5V) CMOS 4.49	4.05
200580EX	24C256-10	8	32k x 8	256k serial (CMOS) 3.19	2.39
74843EX	28C256-15	28	32k x 8	256k 150ns CMOS 8.99	6.89
74878EX	28C256-25	28	32k x 8	256k 250ns CMOS 8.75	7.45

OTP/P	ROM			More @ www.Jameco.	com/IC
Part No.	Cross Ref.	Pins	Descripti	on 1	10
48717EX	74S288	16	32 x 8	Tri-state (27S19/TBP18S030N) \$7.35	\$6.30
27781EX	N82S129	16	256 x 4	1024-bit PROM tri-state (27S21) 7.95	6.95
27801EX	N82S137	18	1024 x 4	4096-bit PROM tri-state (27S33) 4.95	4.25

i lasti ivicilioi y				Wore @ www.Jameco.c	UIII/IC
Part No.	Cross Ref.	Pins	Description	on 1	10
74771EX	28F010-15	32	128k x 8	150ns (12V) CMOS \$6.95	\$6.25
74835EX	28F020-15	32	256k x 8	150ns (12V) CMOS 7.95	7.15

Dynamic Video RAM More @ www.Jameco.com				
Part No.	Cross Ref.	Pins	Description 1	10
41339EX	4116-15	16	16k x 1 150ns (MM5290J-1R)\$.99	\$.89
128688EX	HM514260	SOJ	256k x 16 70ns	2.88

Static	Static RAM More @ www.Jameco.com/IC					
Part No.	Cross Ref.	Pins	Descrip	otion 1	10	
114323EX	DS1230Y-150	28	_	256k nonvol., 4.37V WP \$19.95	\$18.95	
42198EX	5101 🕊	22	256 x 4	450ns (CMOS)	7.19	
38957EX	2114N	18	1k x 4	450ns (9114BPC) 2.29	1.99	
38973EX	2114N-2	18	1k x 4	200ns (9114EPC) (U214D20) 2.49	2.09	
38981EX	2114N-2L	18	1k x 4	200ns low power 2.49	2.25	
42921EX	6264P-10 🗱	28	8k x 8	100ns (64kB) CMOS 2.59	2.29	
42930EX	6264P-12 🗱	28	8k x 8	120ns (64kB) CMOS	2.39	
85121EX	6264LP-70	28	8k x 8	70ns (64kB) LP CMOS	2.99	
42884EX	6264LP-10 📽	28	8k x 8	100ns (64kB) LP CMOS 2.75	2.49	
42892EX	6264LP-12 🕊	28	8k x 8	120ns (64kB) LP CMOS 2.79	2.49	
242721EX	6264-55	28	8k x 8	55ns (5V) CMOS async	2.59	
82472EX	62256LP-70	28	32k x 8	70ns low power CMOS 5.49	4.99	
42833EX	62256LP-10 🕊	28	32k x 8	100ns low power CMOS 4.19	3.55	
42850EX	62256LP-12 🕊	28	32k x 8	120ns low power CMOS 3.89	3.49	
75037EX	ATT7C199P-15	28	32k x 8	15ns high speed CMOS (.3"W) 3.39	2.99	
131810EX	628128LP-70	32	128k x 8	70ns low power CMOS 8.99	7.39	
157358EX	628512LP-70	32	512k x 8	70ns low power CMOS 18.99	16.99	
% PuⅡ						

#### **Voice Chips**

Flash Memory

#### **Single-Chip Voice Record/Playback Devices**

10 to 120 Second Durations (28-pin DIP)

- Single voltage operation: +5V (4.5V to 5.5V operating range)
  100k record cycles (typical)
  1 µA standby current
  - 1 µA standby current (typical)

Part No.	Product No.	Description 1	10
141671EX	ISD1110P	Voice record/playback (10 sec.)\$4.29	\$3.99
107334EX	ISD1420P	Voice record/playback (20 sec.)	5.09
120643EX	ISD2560	Voice record/playback (60 sec.)	8.59
120660EX	ISD2590	Voice record/playback (90 sec.)	8.69
141655EX	ISD25120P	Voice record/playback (120 sec.)	9.45

CPUs/	MPUs		Λ	Nore @ www.Jameco	.com/IC
141655EX	ISD25120P	/oice record/playback (	(120 sec.)	9.95	9.45
120660EX	ISD2590	/oice record/playback (	(90 sec.)	9.29	8.69
120643EX	ISD2560	/oice record/playback (	(60 sec.)	9.19	8.59
107334EX	ISD1420P	/oice record/playback (	(20 sec.)	5.39	5.09

Part No.	Description	MHz	Socket	_ 1	10
183118EX	Pentium® III processor	600	Slot 1 \$159.9	\$117.59	\$111.75
183100EX	Pentium® II processor	400	Slot 1 \$424.9	99.95	94.95
151651EX	Pentium® II processor	300	Slot 1 \$409.9	89.95	85.45
190060EX	Pentium® II w/ heat sink	233	Slot 1	89.95	79.95
150501EX	Pentium MMX® processor	233	376/PGA	69.95	62.95
140054EX	Pentium MMX® processor 🗱	200	376/PGA	49.95	37.45
130841EX	Pentium® processor	166	296/PGA	49.95	37.45
130833EX	Pentium® processor	133	296/PGA	39.95	29.95
118421EX	Intel 486DX2 processor %	66	168/PGA	19.95	14.96
₩ Pull					





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Zilog 280 MPUs				More @ www.Jameco.c	om/IC
Part No.	Cross Ref.	Pins	MHz	Description 1	10
35561EX	Z80 🕊	40	2.5	CPU (MK3880N/780C) \$1.39	\$1.19
35596EX	Z80A <b>≋</b>	40	4	CPU (MK3880N-4/780C-1) 1.99	1.79
35781EX	Z84C00-4	40	4	CPU (Z84C0004PEC) CMOS 4.15	3.49
≋ Pull					

UARTs	More @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description 1	10
27596EX	NS16550AN a	<b>\$</b> 40	Univ. asynch. rcvr./trans. w/ FIFO (PC16550DN) \$5.89	\$4.49
es Dull				

#### 6500 Series

6500 Series			More @ www.Jameco.c	om/IC
Part No.	Cross Ref.	Pins	Description 1	10
43191EX	6502 🕊	40	MPU with internal clock (1MHz)\$7.95	\$6.95
43166EX	65C02 📽	40	MPU with internal clock (CMOS) 6.95	5.25
43254EX	6522 🕊	40	VIA (versatile interface adapter) 1MHz 2.39	2.15

#### ₩ Pull

#### 6800/68000 Series

oo series	More @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description 1	10
43481EX	6800 🕊	40	8-bit MCU\$6.95	\$5.25
43502EX	6802	40	8-bit MCU with clock and RAM (1MHz) $8.50$	7.65
43596EX	6821 🗱	40	Peripheral interface adapter (1MHz) 3.95	3.59
43414EX	68B21 🗱	40	Peripheral interface adapter (2MHz) 4.95	4.49
43633EX	6850 <b>%</b>	24	Asynch. comm. int. adapter (ACIA) 2.39	2.09
25363EX	MC68705P3S	28	8-bit EPROM MPU w/ 112B RAM & I/O 24.95	22.95
132484EX	MC68HC705C8S	40	8-bit HCMOS MCU, 8k bytes, EPROM 38.95	34.95
248612EX	MC68HC705P6ACI	P 28	MCU, OTP 4.5k ROM, 21 I/O A/D	2.75
248401EX	MC68HC908JB8JF	20	MCU, flash 8k ROM, 37 I/O USB	5.45
248381EX	MC68HC908JL3CF	28	MCU, flash 4k ROM, 23 I/O, A/D 4.55	4.35
248364EX	MC68HC908JK3CF	20	MCU, flash, 4k ROM 15 I/O 3.75	3.45
248428EX	MC68HC908KX8CI	P 16	MCU, flash 8k ROM, 13 I/O, A/D	5.45
248487EX	MC68HC908QT1CI	P 8	MCU, Flash, 1.5k ROM, 6 I/O 1.89	1.45
248461EX	MC68HC908QT2CI	P 8	MCU, Flash, 1.5k ROM, 6 I/O, A/D	2.55
248444EX	MC68HC908QT4CI	P 8	MCU, flash 4k ROM, 6 I/O, A/D	1.65
248541EX	MC68HC908QY1C	P 16	MCU, Flash, 1.5k ROM, 141 I/O 2.15	1.65
248524EX	MC68HC908QY2C	P 16	MCU, flash, 1.5k ROM, 13 I/O, A/D 2.55	1.95
248508EX	MC68HC908QY4C	P 16	MCU, Flash, 4k ROM, 13 I/O, A/D	2.49
191863EX	MC68HC11E1CP2	48	8-bit micro cntl. w/ A/D conv. (512B RAM)15.95	12.95

#### ₩ Pull

Part No.

#### 8000 Series

Cross Ref.

Pins Description

More	ത	14/14/14/	Jameco	com/IC	

51844EX	8031 🗱	40	CPU with 128 x 8 RAM and I/O \$3.29	\$2.99
102197EX	8032	40	8-bit MCU 256 x 8 RAM	3.59
51959EX	8039 🕊	40	CPU single chip 8-bit (128 bytes RAM) 4.49	3.99
51991EX	8051AP** <b>%</b>	40	MCU w/128x8 RAM5.49	4.99
52046EX	8080A 🗱	40	CPU 8-bit N-channel (1MHz) 4.49	3.95
52062EX	8085A 🗱	40	CPU 8-bit N-channel (3MHz) 4.99	4.25
52142EX	8088 🗱	40	CPU 16-bit (8-bit data bus) 5MHz	2.25
52071EX	8085A-2 📽	40	CPU 8-bit N-channel (5MHz) 5.49	4.99
51705EX	80C85	40	CPU 8-bit N-channel (3MHz)(CMOS)6.95	5.95
52290EX	8155	40	HMOS RAM I/O port/timer (3MHz)4.49	3.39
52302EX	8155-2 📽	40	HMOS RAM I/O port/timer (5MHz)5.95	5.39
52468EX	8212 🕊	24	8-bit input/output (74S412)	5.99
52644EX	8251	28	Prog. comm. I/O (USART)	2.69
52652EX	8251A 🗱	28	Prog. comm. interface (USART) 3.99	3.69
52687EX	8253-5	24	Prog. interval timer (2MHz)	4.49
52708EX	8254 🕊	24	Prog. interval timer (UPD71054) 4.49	3.99
52716EX	8254-2v 🗱	24	Prog. interval timer (10MHz)	6.65
52409EX	82C54-2	24	Prog. interval timer (CMOS) 10MHz4.49	3.85
52724EX	8255 🕊	40	Prog. peripheral I/O (PPI) 71055 (2MHz) 4.49	3.99
52732EX	8255A-5 📽	40	Prog. peripheral I/O (PPI) 5MHz4.89	4.39
52417EX	82C55A	40	Prog. peripheral I/O (PPI) CMOS4.99	4.49
52425EX	82C55A-5	40	Prog. peripheral I/O (PPI) CMOS (5MHz) 4.49	3.99
52759EX	8256 🕊	40	Multif. universal asynch. rec./trans 19.99	17.99
52839EX	8279 🕊	40	Prog. keyboard/display interface 12.99	11.99
52871EX	8284A 📽	18	Clock gen. and driver (UPD71084) 4.49	3.99

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8000	Series (Continued)	

8000	Series (	Contin	ued) More @ www.Jameco.d	com/IC
Part No.	Cross Ref.	Pins	Description 1	10
53031EX	8748H	40	CPU 8-bit, EPROM, RAM & I/O HMOS (21V) \$15.95	\$14.49
53057EX	8749H	40	MPU 8-bit (EPROM version 8049) 22.99	19.99
53081EX	8751H	40	CPU w/ 4kx8 EPROM & 128x8 RAM (1.2-12MHz) 28.49	24.25
52978EX	87C51	40	CPU w/ 4kx8 EPROM & 128x8 RAM(3.5-12MHz) 21.99	18.69
53090EX	8755	40	16k EPROM with I/O 8.95	8.09

MICROCH	CMOS PI	C	Micro	con	trolle	ers	101 m www.Jameco.c	
Part No.	Product No.	Pkg. Pins	Memory	Speed (MHz)	ROM Bits	RAM Bytes	I/O Lines 1	25
145040EX	PIC12C508-04/P	8	OTP	4	512	25	5 \$1.49	\$.99
144258EX	PIC12C509-04/P	8	OTP	4	1k	41	5 1.49	1.09
247193EX	PIC12F629-I/SN	8	Flash	20	1k	64	61.59	1.29
247206EX	PIC12F675-I/SN	8	Flash	20	1k	64	6 1.99	1.29
247329EX	PIC16C505-20I/P	14	OTP	20	1k	72	11 2.00	1.69
247337EX	PIC16C505-20I/SL	14	OTP	20	1k	72	11 <b>1.99</b>	1.69
247214EX	PIC16C54C-20I/P	18	OTP	20	512	25	12 <b>2.33</b>	2.00
247222EX	PIC16C54C-20I/SO	18	OTP	20	512	25	12 <b>2.33</b>	1.91
247231EX	PIC16C54C-20I/SS	20	OTP	20	512	25	12 <b>2.57</b>	2.18
247249EX	PIC16C55A-20I/P	28	OTP	20	512	24	20 <b>2.96</b>	2.61
247257EX	PIC16C55A-20/S0	28	OTP	20	512	24	20 <b>3.08</b>	2.61
134172EX	PIC16C56-RC/P	18	OTP	20	1k	25	12 <b>4.49</b>	3.69
247265EX	PIC16C56A-20I/P	18	OTP	20	1k	25	12 <b>2.87</b>	2.44
247273EX	PIC16C56A-20/S0		OTP	20	1k	25	12 <b>2.66</b>	2.56
247281EX	PIC16C57C-20/P	28	OTP	20	2k	72	20 3.46	2.75
247290EX	PIC16C57C-20/SO		OTP	20	2k	72	20 3.60	3.06
247302EX	PIC16C58B-20/P	18	OTP	20	2k	73	12 <b>2.77</b>	2.22
247311EX	PIC16C58B-20/S0		OTP	20	2k	73	12 2.82	2.4
193383EX	PIC16C622A-04/P	18	OTP	4	2k	128	13 <b>2.69</b>	2.29
193359EX	PIC16C711-04/P	18 18	OTP	4	1k	68	13 3.99	2.29
193439EX 193447EX	PIC16F627-20/P PIC16F628-20/P	18	Flash	20 20	1k	224 224	16 <b>3.29</b>	2.55
246730EX	PIC16F628-20/S0	18	Flash Flash	20	2k 2k	224	16 3.71	2.73
246748EX	PIC16F628-20/SS	20	Flash	20	2k	224	16 4.02	2.97
246756EX	PIC16F628-20I/P	18	Flash	20	2k	224	16 4.02	2.9
246764EX	PIC16F628-20I/SO		Flash	20	2k	224	16 4.09	3.02
247126EX	PIC16F630-I/SL	14	Flash	20	1k	128	12 <b>1.86</b>	1.58
247134EX	PIC16F630-I/ST	T14	Flash	20	1k	128	12 <b>2.07</b>	1.77
247142EX	PIC16F648A-I/P	18	Flash	20	4k	256	16 3.27	1.92
247151EX	PIC16F648A-I/S0	18	Flash	20	4k	256	16 3.34	2.46
247169EX	PIC16F648A-I/SS	20	Flash	20	4k	256	16 <b>3.59</b>	2.66
247177EX	PIC16F676-I/SL	14	Flash	20	1k	64	12 <b>2.14</b>	1.81
247185EX	PIC16F676-I/ST	T14	Flash	20	1k	64	12 <b>2.35</b>	2.00
246801EX	PIC16F73-I/SO	28	Flash	20	4k	192	22 <b>5.06</b>	4.30
193391EX	PIC16F73-I/SP	28	Flash	20	4k	192	5 <b>5.19</b>	4.19
246810EX	PIC16F73-I/SS	28	Flash	20	4k	192	22 <b>5.20</b>	4.41
246772EX	PIC16F74-I/L	44	Flash	20	4k	192	33 <b>6.86</b>	6.12
246781EX	PIC16F74-I/P	44	Flash	20	4k	192	33 <b>7.36</b>	6.26
246828EX	PIC16F76-I/S0	28	Flash	20	8k	368	22 <b>6.34</b>	5.39
246836EX	PIC16F76-I/SS	28	Flash	20	8k	368	22 <b>6.49</b>	5.52
246799EX	PIC16F77-I/L	44	Flash	20	8k	368	33 <b>7.85</b>	6.99
247054EX	PIC16F818-I/S0	18	Flash	20	1k	128	16 3.10	2.28
247062EX	PIC16F818-I/SS	20	Flash	20	1k	128	16 3.37	2.39
247089EX	PIC16F819-I/S0	18	Flash	20	2k	256	16 3.53	2.60
247071EX	PIC1/F84 04/B	20	Flash	20	2k	256	16 3.81	2.81
145111EX	PIC16F84-04/P	18	Flash	4	1k	68	13 6.59	4.39
145120EX	PIC16F84-10/P	18	Flash	10	1k	68	13 <b>7.09</b>	5.99
193332EX	PIC16F84A-20/P	18 18	Flash	20	1k	68	13 <b>5.79</b>	4.69
246844EX	PIC16F84A-20/S0	18 20	Flash	20	1k	68 68	13 <b>5.73</b>	4.87
246852EX 246861EX	PIC16F84A-20/SS PIC16F84A-20I/P	18	Flash Flash	20 20	1k 1k	68 68	13 <b>6.11</b> 13 <b>6.20</b>	5.19
246879EX	PIC16F84A-20I/SO		Flash	20	1k	68	13 6.30	5.35
246879EX 246887EX	PIC16F84A-20I/SS		Flash	20	1k	68	13 <b>6.66</b>	5.65
247097EX	PIC16F87-I/P	18	Flash	20	4k	368	16 4.02	2.97
247097EX 247100EX	PIC16F87-I/S0	18	Flash	20	4k	368	16 4.12	3.0
247100EX 247118EX	PIC16F87-I/SS	20	Flash	20	4k	368	16 4.12	3.2
247118EX 246908EX	PIC16F870-I/S0	28	Flash	20	2k	128	22 4.35	3.6
246895EX	PIC16F870-I/SP	28	Flash	20	2k	128	22 4.35	3.69
246916EX	PIC16F870-I/SS	28	Flash	20	2k	128	22 4.49	3.81
- 107 IOLA	PIC16F871-I/L	44	Flash	20	2k	128	33 5.76	5.40

22103EX



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#### MICROCHIP CMOS PIC Microcontrollers (Continued)

		Pkg.		Speed	ROM	RAM	1/0	
Part No.	Product No.	Pins	Memory	(MHz)	Bits	Bytes	Lines 1	25
246924EX	PIC16F871-I/P	40	Flash	20	2k	128	33 <b>\$5.15</b>	\$4.65
246959EX	PIC16F872-I/SO	28	Flash	20	2k	128	22 <b>4.35</b>	3.69
246941EX	PIC16F872-I/SP	28	Flash	20	2k	128	22 4.35	3.69
246967EX	PIC16F872-I/SS	28	Flash	20	2k	128	22 <b>4.49</b>	3.81
246983EX	PIC16F873A-I/SO	28	Flash	20	4k	192	22 6.16	5.22
246975EX	PIC16F873A-I/SP	28	Flash	20	4k	192	22 <b>6.29</b>	5.19
247003EX	PIC16F874A-I/L	44	Flash	20	4k	192	33 <b>7.55</b>	6.73
246991EX	PIC16F874A-I/P	40	Flash	20	4k	192	33 <b>6.72</b>	5.72
193367EX	PIC16F876-20/SP	28	Flash	20	256	368	22 <b>7.89</b>	6.69
247020EX	PIC16F876A-I/SO	28	Flash	20	8k	368	22 <b>6.63</b>	5.64
247011EX	PIC16F876A-I/SP	28	Flash	20	8k	368	22 6.63	5.64
176882EX	PIC16F877-20/P	40	Flash	20	256	368	33 <b>9.49</b>	8.49
247046EX	PIC16F877A-I/L	44	Flash	20	8k	368	33 <b>8.11</b>	7.24
247038EX	PIC16F877A-I/P	40	Flash	20	8k	368	33 <b>7.24</b>	6.15
247345EX	PIC16HV540-20/P	18	OTP	20	512	25	12 <b>2.30</b>	1.95
247353EX	PIC16HV540-20/S0	20	OTP	20	512	25	12 <b>2.35</b>	2.00

#### **ATRIC Series**

#### More @ www.Jameco.com/IC

Part No.	Product No.	Pins	Description 1	25
168903EX	AT89C51-24PC	40	8-bit MCU, 24MHz 4kb flash memory \$4.49	\$3.99
168920EX	AT89C52-24PC	40	8-bit MCU, 24MHz 8kb flash mem 4.39	2.85
168938EX	AT89C52-24JC	44	8-bit MCU, 24MHz 8kb flash PLCC 4.35	2.83
168874EX	AT89C2051-24PC	20	8-bit MCU, 24MHz 2kb flash mem 3.59	2.39
204089EX	AT89C4051-24PC	20	8-bit MCU, 24MHz 4kb flash mem. 8-bit 4.49	2.95
204097EX	AT89S8252-24PC	40	8-bit MCU, 24MHz 8kb flash mem. 2kb EEPROM 6.75	4.49
204100EX	AT90S1200-12PC	20	20 AVR 8-bit RISC MCU, 12MHz 1kb prog. flash 2.95	1.95
204126EX	AT90S8515-8PC	40	40 AVR 8-bit RISC MCU, 8MHz 8kb prog. flash 7.95	5.49

#### **Stamp Microcontrollers**

#### 80C52-BASIC Microcontroller

The 80C52-BASIC chip is a custom-masked 80C52 microcontroller with a full-featured 8k-byte ROM-resident BASIC-52 interpreter.

Hardware: • On-chip oscillator and clock circuit

• Operates DC to 12MHz • 256 x 8-bit RAM

Software: • Full BASIC interpreter in ROM on a single chip

"Stand-alone" software development

Interrupts can be handled by BASIC or Assembly Language

Part No.	Product No.	Description	1	10
125647EX	80C52BASIC	CPU 8-bit CMOS w/ BASIC interpreter	\$32.09	\$28.89

#### 

Part No.	Cross Ref.	Pins	Description 1	10
38666EX	20V8-25*	24	25ns 64 x 40 AND array\$1.63	\$1.46
39167EX	22V10-25	24	25ns 132 x 44 AND array lattice 3.99	3.49

#### GALs are electrically erasable PLDs that can be used in place of numerous PALs

#### 4000 Series

#### More @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description 1	10		
12562EX	CD4001**	14	Quad 2-input NOR gate\$.29	\$.24		
12634EX	CD4011**	14	Quad 2-input NAND gate29	.24		
12677EX	CD4013**	14	Dual D flip-flop with set/reset35	.25		
12706EX	CD4015*	16	Dual 4-stage static shift register	.37		
12722EX	CD4016*	14	Quad bilateral switch28	.24		
12749EX	CD4017*	16	Decade counter/divider39	.35		
12802EX	CD4020*	16	14-stage binary/ripple counter49	.39		
12845EX	CD4023*	14	Triple 3-input NAND gate29	.25		
12853EX	CD4024*	14	7-stage binary counter32	.27		
12950EX	CD4040*	16	12-stage binary/ripple counter32	.27		
13055EX	CD4049**	16	HEX/buffer/converter (inverting)29	.24		
13071EX	CD4050*	16	Hex/buffer/converter (N-inverting)22	.19		
13098EX	CD4051*	16	Single 8-channel multi./demultiplexer45	.39		
13127EX	CD4053	16	Triple 2-channel multi./demultiplexer33	.27		
13186EX	CD4066**	14	Quad bilateral switch35	.25		
*10 pieces i	*10 pieces in CD4000 kit, pg 37					

#### 4000 Series (Continued)

More @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description 1	10			
13231EX	CD4069*	14	Hex inverter (74C04)\$.30	\$.24			
13258EX	CD4070*	14	Quad EXCLUSIVE-OR gate (74C86)28	.24			
13354EX	CD4081*	14	Quad 2-input AND gate	.24			
13400EX	CD4093*	14	Quad 2-input NAND Schmitt trigger	.25			
13493EX	CD4511*	16	BCD to 7-seg. latch/decoder/driver	.59			
13581EX	CD4520	16	Dual binary up counter	.35			
13611EX	CD4528	16	Dual monostable multivibrator	.49			
13653EX	CD4538*	16	Dual precision monostable multivibrator59	.49			
13696EX	CD4543*	16	BCD to 7-segment decoder (LCD)59	.45			
13709EX	CD4553	16	3-digit BCD counter	2.75			
*10 pieces	*10 pieces in CD4000 kit, pg 37  **20 pieces in CD4000 kit, pg 37						

#### **IC Test Clip Series**

Heavy-duty spring loaded hinge provides positive contact
20 AWG insulated gold contacts
Color: white



7400	Series		More @ www.Jameco.	com/IC
Part No.	Cross Ref.	Pins	Description 1	10
48979EX	7400**	14	Quad 2-input NAND gate\$.65	\$.55
49015EX	7402*	14	Quad 2-input NOR gate59	.49
49040EX	7404**	14	Hex inverter59	.49
49120EX	7407**	14	Hex buffer/driver (O.C.)35	.32
49146EX	7408*	14	Quad 2-input AND gate82	.63
49728EX	7417*	14	Hex buffer/driver (O.C. hi-voltage)91	.77
50235EX	7432*	14	Quad 2-input OR gate59	.49
50403EX	7445	16	BCD-to-decimal decoder/driver (30V) 1.02	.91
50420EX	7447*	16	BCD-to-7 segment decoder/driver (15V) 1.49	1.29
50577EX	7475	16	4-bit bi-stable latch	2.75
50593EX	7476	16	Dual JK flip-flop with preset & clear 1.79	1.51
50631EX	7483	16	4-bit binary full adder89	.79
50665EX	7486	14	Quad EXCLUSIVE-OR gate	.75
50681EX	7489	16	64-bit RAM P 50ns 3.49	3.19
50690EX	7490	14	Decade counter1.49	1.15
50745EX	7493	14	4-bit binary counter 1.49	1.34
49509EX	74150	24	16 to 1 line multiplexer 1.95	1.75
49883EX	74189	16	64-bit RAM tri-state (DM8599N)	3.31
49912EX	74192	16	Decade up/down counter with clear 3.69	3.39
88225EX	SDLD001A		Texas Instruments TTL Data Book 34.95	31.49

#### 74AC Series

7400 Camina

#### More @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description 1	10
238887EX	74AC10	14	Triple 3-input NAND gate\$.25	\$.24
238836EX	74AC20	14	4-input NAND gate	.36
238730EX	74AC139	16	Dual 1 of 4 decoder/demultiplexer \$.55 .44	.37
238748EX	74AC151	16	8-input multiplexer	.32
238844EX	74AC241	20	Octal buffer/line driver w/ 3-state outputs 4.41	.33
238879EX	74AC257	16	Quad 2-input multiplexer	.35

#### **74ACT Series**

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Part No.	Cross Ref.	Pins	Description 1	10
239046EX	74ACT10	14	Triple 3-input NAND gate\$.20	\$.18
239011EX	74ACT139	16	Dual 1 of 4 decoder/demultiplexer \$.40 .38	.31
239020EX	74ACT151	16	8-input multiplexer \$.55 .51	.39

Octal buffer/line driver with 3-state outputs \$.44

# 239097EX 74ACT241 74C Series

#### More @ www.Jameco.com/IC

More @ www. Jameco.com/IC

Part No.	Cross Ref.	Pins	Description 1	10
44222EX	74C00	14	Quad 2-input NAND gate\$.99	\$.74
44231EX	74C04	14	Hex inverter (CD4069)99	.74
44564EX	74C922	18	16-key keyboard encoder (INS8245N) 6.29	5.05
44572EX	74C923	20	20-key keyboard encoder (INS8246N) 5.99	4.95





<sup>\*</sup> Replaces PALs: 14H8, 14L8, 14P8, 16H6, 16L6, 16P6, 18H4, 18L4, 18P4, 20H2, 20H8, 20L2, 20L8, 20P2, 20P8, 20R4, 20R6, 20R8, 20RP4, 20RP6, 20RP8

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<b>74HC</b>	Series		More @ www.Jameco.co	om/IC		
			* Prepackaged: order in increme			
Part No.	Cross Ref.	Pins	Description 1	10		
45161EX	74HC00	14	Quad 2-input NAND gate (6231581) \$.22	\$.19		
45188EX	74HC02	14	Quad 2-input NOR gate*	.15		
45209EX	74HC04	14	Hex inverter (buffered)23	.19		
45364EX	74HC14	14	Hex inverter Schmitt trigger22	.19		
45794EX	74HC32	14	Quad 2-input OR gate28	.23		
46130EX	74HC74	14	Dual D flip-flop	.32		
45330EX	74HC138	16	3-to-8 decoder/demultiplexer30	.27		
45541EX	74HC192	16	Decade up/down counter with clear 1.59	1.45		
45612EX	74HC240	20	Octal inverting line driver tri-state	.22		
45655EX	74HC244	20	Octal driver tri-state45	.39		
45831EX	74HC373	20	Octal D-type flip-flop tri-state45	.39		
45858EX	74HC374	20	Octal D-type flip-flop edge-trig tri-state49	.39		
46050EX	74HC541	20	Octal buffer/line driver tri-state	.27		
46084EX	74HC574	20	Octal D-type flip-flop tri-state33	.27		
46105EX	74HC595	16	8-bit serial-to-parallel shift reg. tri-state62	.44		

#### 74HCT Series More @ www.Jameco.com/IC

			* Prepackaged: order in increme	nts of 10
Part No.	Cross Ref.	Pins	Description 1	10
44871EX	74HCT00	14	Quad 2-input NAND gate (Y560820T) \$.24	\$.20
44898EX	74HCT04	14	Hex inverter23	.20
44901EX	74HCT08	14	Quad 2-input AND gate*	.15
44935EX	74HCT14	14	Hex inverter Schmitt trigger20	.18
45057EX	74HCT32	14	Quad 2-input OR gate21	.18
45137EX	74HCT74	14	Dual D flip-flop25	.21
44927EX	74HCT138	16	3-to-8 decoder/demultiplexer33	.27
63773EX	74HCT139	16	2-to-4 decoder/demultiplexer30	.27
88057EX	74HCT154	24	4-to-16 decoder/demultiplexer	.85
45014EX	74HCT240	20	Octal inverting line driver tri-state32	.29
45022EX	74HCT244	20	Octal driver tri-state30	.29
45031EX	74HCT245	20	Octal transceiver tri-state	.30
45049EX	74HCT273	20	Octal D-type flip-flop with clear38	.30
45065EX	74HCT373	20	Octal D-type flip-flop tri-state33	.27
45073EX	74HCT374	20	Octal D-type flip-flop edge-trig. TS	.30
99303EX	74HCT541	20	Octal buffer/line driver tri-state38	.30
45090EX	74HCT573	20	Octal D-type latched flip-flop tri-state35	.30
45102EX	74HCT574	20	Octal D-type flip-flop edge-trigger tri-state38	.30
45129EX	74HCT688	20	8-bit magnitude comparator53	.43

/4L5	Series		More @ www.	Jameco.co	om/IC
Part No.	Cross Ref.	Pins	Description	1	10
46252EX	74LS00**	14	Quad 2-input NAND gate	\$.29	\$.27
46287EX	74LS02**	14	Quad 2-input NOR gate	29	.25
46316EX	74LS04**	14	Hex inverter	29	.26
46341EX	74LS05*	14	Hex inverter (O.C.)	34	.28
46367EX	74LS07	14	Hex buffer/driver (O.C. hi-voltage)	84	.79
46375EX	74LS08**	14	Quad 2-input AND gate	36	.31
46404EX	74LS10*	14	Triple 3-input NAND gate	24	.16
46439EX	74LS11*	14	Triple 3-input AND gate	36	.27
46640EX	74LS14*	14	Hex inverter Schmitt trigger	29	.25
47095EX	74LS20*	14	Dual 4-input NAND gate	25	.19
47458EX	74LS30*	14	8-input NAND gate	33	.29
47466EX	74LS32**	14	Quad 2-input OR gate	29	.26
47693EX	74LS38	14	Quad 2-input NAND gate buffer (O.C.)	29	.25
47790EX	74LS47*	16	BCD to 7-seg. decoder/driver (O.C.)	72	.52
47811EX	74LS48	16	BCD to 7-seg. decoder/driver	4.99	4.24
47992EX	74LS73*	14	Dual JK flip-flop with clear	32	.27
48004EX	74LS74**	14	Dual D flip-flop	29	.25
48021EX	74LS75*	16	4-bit bi-stable latch	85	.73
48039EX	74LS76	16	Dual JK flip-flop with preset and clear	69	.62
48071EX	74LS85*	16	4-bit magnitude comparator		.33
48098EX	74LS86*	14	Quad EXCLUSIVE-OR gate	35	.30
48119EX	74LS90*	14	Decade counter		.45
48151EX	74LS93*	14	4-bit binary counter		.79
46480EX	74LS123*	16	Dual mono. multivibrator with clear	39	.30

 $^{*}$ 10 pieces included in 74LS kit, pg 37  $^{**}$ 20 pieces included in 74LS kit, pg 37

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<b>74LS</b>	Series (Continued)	More @ www.Jameco.com/IC

			* Prepackaged: order in increme	ents of 10
Part No.	Cross Ref.	Pins	Description	l 10
46501EX	74LS125*	14	Quad bus buffer neg. enable tri-state \$.46	\$.35
46607EX	74LS138**	16	3 to 8 decoder/demultiplexer38	.35
46623EX	74LS139*	16	2 to 4 decoder/demultiplexer34	.29
46703EX	74LS151*	16	8-bit input multiplexer39	.35
46738EX	74LS154	24	4 to 16 line decoder/demultiplexer 4.45	3.99
46754EX	74LS155*	16	Dual 2/4 demultiplexer49	.41
46771EX	74LS157*	16	Quad 2/1 data selector36	.31
46818EX	74LS161	16	Synch 4-bit counter44	.38
46851EX	74LS164	14	8-bit serial shift register37	.31
46931EX	74LS174*	16	Hex D flp-flop with clear34	.29
46957EX	74LS175*	16	Quad D flip-flop with clear40	.31
46990EX	74LS190	16	Synchronous up/down counter 1.71	1.54
47010EX	74LS192	16	Decade up/down counter with clear 3.95	3.59
47036EX	74LS193*	16	Binary up/down counter with clear59	.49
47141EX	74LS240*	20	Octal invert. line driver tri-state41	.31
47167EX	74LS241	20	Octal bus/line driver tri-state	.25
47183EX	74LS244*	20	Octal driver tri-state44	.37
47212EX	74LS245*	20	Octal bus transceiver tri-state45	.39
47247EX	74LS247	16	BCD to 7-segment decoder/driver (O.C.)94	.80
47386EX	74LS273*	20	Octal D-tyoe flip-flop with clear	.31
47600EX	74LS373*	20	Octal D flip-flop tri-state45	.39
47634EX	74LS374*	20	Octal D F/F edge-trig tri-state45	.39
47669EX	74LS377	20	Octal D register common enable*	.13
47722EX	74LS390	16	Dual 4-bit decade counter	.59
47861EX	74LS540	20	Octal invert. buffer/line driver tri-state86	.74
47870EX	74LS541	20	Octal buffer/line driver tri-state69	.59
64418EX	74LS573	20	Octal D-type F/F latch tri-state	1.81
47984EX	74LS688	20	8-bit magnitude comparator \$4.19 .80	.77
*10 pieces i	n 74LS kit, pg 37	**20 pi	eces in 74LS kit, pg 37	

#### 9000 Series

Part No.	Cross Ref.	Pins	Description	l 10
53663EX	9368	16	FND70 driver/latch\$4.49	\$3.95
10567EX	AM9513APC	<b>38</b> 40	System timing controller 39.95	35.95

DALL	🤽 Semic	one	ductor More @ www.Jameco.d	com/IC
Part No.	Product No.	Pins	Description 1	10
133410EX	DS1216C	28	Smartwatch/RAM 64K/256k\$31.85	\$27.69
114278EX	DS1225AB-150	28	64k nonvol. SRAM 5%pwr, 4.62V WP 17.29	14.49
177113EX	DS1230Y-100	28	256k nonvol. SRAM 10%pwr, 4.37V WP 17.75	13.75
176778EX	DS1302	8	Trickle charge time keeping IC 2.49	2.25
114374EX	DS1387 🗱	24	RAMified real time clock 4kx8 8.59	7.99
114382EX	DS1620	8	Digital thermometer & thermostat 6.29	5.05
133452EX	DS12887 🗱	24	Real time clock chip 8.15	6.25

IVIAXIN	n-Type II	nter	Tace Series More @ www	Jameco.c	:om/IC
Part No.	Cross Ref.	Pins	Description	1	10
142535EX	MAX202CPE	16	+5V RS-232 trans. requires 0.1µF caps	\$2.49	\$2.25
244241EX	MAX202EPE	16	+5V RS-232 Transceivers	1.13	.99
24811EX	MAX232CPE SP232ACP	16	+5V powered, dual RS-232 transmitter/ receiver (0°C to +70°C)	2.19	1.75
106147EX	MAX232CWE	16	+5V powered, dual RS-232 (SOIC) trans./rcs	/r <b>2.75</b>	2.10
106155EX	MAX232EPE SP232AEP	16	+5V powered, dual RS-232 transmitter/receiver (-40°C to +85°C)	2.49	2.25
106163EX	MAX233CPP SP233ACP	20	+5V powered, multichannel RS-232 drivers/receivers (no ext. components)	5.75	5.18
106171EX	MAX235CPG SP235ACP	24	+5V powered, five RS-232 transmitter/ receiver (no ext. components)	9.95	8.45
242085EX	MAX626CPA	8	Dual 1.5A-peak low-side		
	MIC4426N		MOSFET driver	1.14	.93
244195EX	MAX1487CPA	8	RS-485/RS-422 low-power transceivers	2.45	1.89
◆ Surface m	ount				

741 C Corioc



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Interface Series			More @ www.Jameco.co	om/IC
Part No.	Cross Ref.	Pins	Description 1	10
25232EX	MC3486P	16	Quad EIA-422/423 line rec. w/ 3-st. outputs \$.59	\$.49
25259EX	MC3487P	16	Quad EIA-422 line driver w/ 3-state outputs69	.59
50964EX	75176BN	8	Differential bus transceiver	.55
23157EX	75188N	14	Quad line driver RS-232 (DS1488N)	.25
23181EX	75189N	14	Quad line rec. RS-232 (DS1489N)29	.20
51131EX	75492	14	Hex digit driver (492) 4.25	3.89

#### Digital Interface ICs

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#### Stepper Motor Controllers

Designed to interface a logic level input byte to a stepper motor.

Part No.	Product No.	Pins	Description	1	10
141532EX	EDE1200	18	Unipolar stepper motor controller	Was \$8.95 \$8.30	\$6.90
157526EX	EDE1204	18	Bipolar stepper motor controller	Was \$8.95 8.30	6.90

#### 5000 Series and Clock Chips More @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description 1	10
32803EX	TCM5089N	16	Integrated tone dialer chip\$4.99	\$4.49
25101EX	MC146818 🗱	24	Real time clock plus RAM4.09	3.48
** D. II				

#### **Decoders**

More @ www.Jameco.com/IC

Part No.	Product No.	Pins	Description	1	10
126607EX	HT648L	24	Decoder 10-bit address / 8-bit latch data	\$3.29 \$2.89	\$2.39

#### **KAE Servo Motor Controller**

More @ www.Jameco.com/IC

Controllers operate from standard 8-bit serial interface (RS-232 or RS-485). Using RS-485, any mix of up to 32 controllers may be operated from a single serial port. Complete documentation.

#### PIC-SERVO Motion Control Chipset for DC Motors

- · PIC servo control for DC motors with digital encoders
- 32-bit position, velocity, and acceleration resolution
- PWM and direction outputs connect to servo amplifier
- Two chip set (PIC-SERVO 28-pin and PIC-ENC 18-pin)

Part No.	Description	Pins	1	10
146472EX	PIC-SERVO chip set, 0.3" DIP	28/18	\$34.95	\$29.50

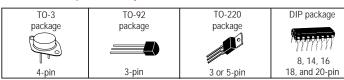
#### A/D & D/A Converters

More @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description 1	10
115158EX	AD558JN	16	Microprocessor compat. 8-bit DAC \$45.95 \$12.59	\$11.99
43756EX	7107CPL	40	3 1/2-digit LED single-chip A/D converter \$3.49 3.19	2.59
10153EX	ADC0804LCN	20	8-bit A/D converter (1 LSB) 2.49	1.89
10170EX	ADC0808CCN	28	8-bit A/D convtr. w/ 8-ch. multiflexer 4.99	4.19
10188EX	ADC0809CCN	28	8-bit A/D convtr. w/ 8-ch. multiflexer 2.89	2.59
116100EX	ADC0831CCN	8	8-bit A/D converter w/ single diff. input 1.95	1.75
128186EX	DAC0832LCN	20	8-bit μP D/A conv. dbl. buff. (.05% Lin.) \$2.95 3.09	2.99

#### Voltage Regulators More @ www.Jameco.com/IC

Part No.	Cross Ref.	Pkg.	Description	1	10
23579EX	LM317T**	TO-220/3	1.5A adj. pos. reg. (1.2V-37V)	. \$.45	\$.39
23667EX	LM323K	TO-3/2	5V 3A positive reg	. 2.89	2.75
23819EX	LM337T*	TO-220/3	1.5A/adj. neg. reg. (-1.2V-37V)	69	.59
23835EX	LM338K	TO-3/2	5A adj. pos. reg. (1.2V-32V)	. 4.95	3.89
192284EX	LM338T	TO-220/3	5A adjustable regulator		1.49
23940EX	LM350T	TO-220/3	3 amp. adj. power regulator \$4.45	1.09	.89
24467EX	LM723CN*	DIP-14	Voltage regulator (2V-37V)	26	.24
23368EX	LM2931CT	TO-220/5	3V-24V low dropout regulator	68	.59
51262EX	7805T**	TO-220/3	5V 1A pos. voltage reg. (LM340T-5)	35	.32
51182EX	78L05**	TO-92	5V 100mA pos. voltage regulator	27	.24
192233EX	78M05	TO-220/3	5V 500mA pos. voltage regulator	35	.32
51300EX	7808T*	TO-220/3	8V 1A pos. voltage reg. (LM340T-8)	46	.35
192225EX	78L09	TO-92	9V 100mA pos. voltage regulator	24	.23
51334EX	7812T**	TO-220/3	12V 1A pos. voltage reg. (LM340T-12)	35	.32
51203EX	78L12*	TO-92	12V 100mA pos. voltage regulator	19	.155
192241EX	78M12	TO-220/3	12V 500mA pos. voltage regulator	24	.22
51457EX	7905T*	TO-220/3	5V 1A neg. voltage regulator	42	.38
51481EX	7912T*	TO-220/3	12V 1A neg. voltage regulator	30	.25
51431EX	79L12	TO-92	12V 100mA neg. voltage regulator	19	.14
*10 pieces in	Linear kit, pg	37 **20 p	ieces in Linear kit, pg 37		



4-p	oin	3-p	oin	3 or 5-pin	18, and 20	
	Series	 S			ww.Jameco.co	om/IC
	Cross Ref.	Pkg.	Description		1	10
25751EX	MF10CN	DIP-20		pose dual active filter		\$2.19
120723EX	LM12CLK	TO-3/4	80W op am	ıp	19.05	18.65
107094EX	LM34CZ	TO-92	Prec. F temp	o. sensor (-40°F to +230°F)	4.90	4.26
155192EX	LM34DZ	TO-92	Prec. F tem	p. sensor (+32°F to +212°F)	1.99	1.67
192217EX	LM35DT	TO-220/3		np. sensor (-55°C to 150°C)		1.92
107107EX	LM35CZ	TO-92		np. sensor (-40°C to 110°C)		4.39
33195EX	TL072CP*	DIP-8		JFET dual op amp		.25
33216EX 33267EX	TL074CN* TL084CN*	DIP-14 DIP-14		JFET quad op amp		.30
239329EX	DG211CJ	DIP-14		quad op amp channel analog switch		1.64
23392EX	LM301N*	DIP-8	-	p amp		.42
23464EX	LM308N*	DIP-8		p amp		3.99
23528EX	LM311N*	DIP-8		nparator		.2!
23608EX	LM318N	DIP-8	-	i-speed op amp		.52
23632EX	LM319N	DIP-14	Hi-speed du	ual comparator	30	.25
212169EX	LM324AN	DIP-14	Low power	quad op amp	22	.2
23683EX	LM324N**	DIP-14	Low power	quad op amp. (ULN4336)	27	.23
23721EX	LM331N	DIP-8		freq. convrtr. (150ppm/°C)		1.55
	LM334Z	TO-92	,	ent source		.6
23851EX	LM339N**	DIP-14		parator		.165
121099EX	LP339N	DIP-14		ower comparator		.34
120862EX 23966EX	LM358AN LM358N*	DIP-8 DIP-8		dual op amp. (elect improv.)		.37
24088EX	LM383T	TO-220/5		dual op amp o high power amp		.18 5.39
24133EX	LM386N-3*	DIP-8		e audio amp. 500mW/9V		.59
24281EX	LM393N*	DIP-8		arator		.18
23000EX	LF398N	DIP-8	-	d hold circuit		1.45
245489EX	DG405DJ	DIP-16		lual hi-speed analog switch		2.85
119950EX	LF412ACN	DIP-8	Dual JFET o	op-amp	2.85	2.55
256487EX	DG444DJ	DIP-16	Improved q	uad SPST analog switch	\$2.69 1.39	1.30
27422EX	LM555CN**	DIP-8		1455P/NE555V)		.23
126797EX	LMC555CN*			timer		.49
24328EX 24352EX	LM556N*	DIP-14		mer (MC3456P)		1.20
24395EX	LM565N LM567V	DIP-14 DIP-8		ked loop ler		.40
27490EX	NE571N	DIP-16		, subscriber		2.99
	AD620AN	DIP-8		strument amplifier		15.95
115182EX	AD633JN	DIP-8		nalog multiplier		7.05
120926EX	LM675T	TO 220/E			7.09	
24539EX		TO-220/5	Power op a	mp		
24563EX	LM741CN**	DIP-8		mp ILN2151)	\$7.95 6.95	5.25
			Op amp. (U			5.25
239265EX	LM741CN** LM747CN LT1004CZ-2.5	DIP-8	Op amp. (U Dual 741 op	LN2151)		5.25 .25 3.85
24942EX	LM741CN** LM747CN LT1004CZ-2.5 MC1350P	DIP-8 DIP-14 TO-92 DIP-8	Op amp. (U Dual 741 op 2.5V, micro Video IF am	ILN2151) p amp power voltage reference pp (12V operation)	. \$7.95 6.95 	5.25 .25 3.85 .52 1.85
24942EX 23131EX	LM741CN** LM747CN LT1004CZ-2.5 MC1350P LM1458N*	DIP-8 DIP-14 TO-92 DIP-8 DIP-8	Op amp. (U Dual 741 op 2.5V, micro Video IF am Dual op am	ILN2151) p amp power voltage reference pp (12V operation) p. (RC4558)	. \$7.95 6.95 	5.25 .25 3.85 .52 1.85
24942EX 23131EX 23211EX	LM741CN** LM747CN LT1004CZ-2.5 MC1350P LM1458N* LM1496N	DIP-8 DIP-14 TO-92 DIP-8 DIP-8	Op amp. (U Dual 741 op 2.5V, micro Video IF am Dual op am Balanced m	p amp p power voltage reference p (12V operation) p. (RC4558)	. \$7.95 6.95 	5.25 .25 3.85 .52 1.85 .26
24942EX 23131EX 23211EX 23270EX	LM741CN** LM747CN LT1004CZ-2.5 MC1350P LM1458N* LM1496N LM1875T	DIP-8 DIP-14 TO-92 DIP-8 DIP-8 DIP-14 TO-220/5	Op amp. (U Dual 741 op 2.5V, micro Video IF am Dual op am Balanced m 20-watt pov	p amp	. \$7.95 6.95 	5.25 .25 3.85 .52 1.85 .26 .59
24942EX 23131EX 23211EX 23270EX 107140EX	LM741CN** LM747CN LT1004CZ-2.5 MC1350P LM1458N* LM1496N LM1875T LM1881N	DIP-8 DIP-14 TO-92 DIP-8 DIP-8 DIP-14 TO-220/5 DIP-8	Op amp. (U Dual 741 op 2.5V, micro Video IF am Dual op am Balanced m 20-watt pov Video synct	p amp	. \$7.95 6.95 	5.25 .25 3.85 .52 1.85 .26 .59 1.55 2.05
24942EX 23131EX 23211EX 23270EX 107140EX 243547EX	LM741CN** LM747CN LT1004CZ-2.5 MC1350P LM1458N* LM1496N LM1875T LM1881N LM1894N	DIP-8 DIP-14 TO-92 DIP-8 DIP-8 DIP-14 TO-220/5 DIP-8 DIP-14	Op amp. (U Dual 741 op 2.5V, micro Video IF am Dual op am Balanced m 20-watt pov Video synct DNR noise	p amp	. \$7.95 6.95 	5.25 .25 3.85 .52 1.85 .26 .59 1.55 2.05 2.14
24942EX 23131EX 23211EX 23270EX 107140EX	LM741CN** LM747CN LT1004CZ-2.5 MC1350P LM1458N* LM1496N LM1875T LM1881N	DIP-8 DIP-14 TO-92 DIP-8 DIP-8 DIP-14 TO-220/5 DIP-8	Op amp. (U Dual 741 op 2.5V, micro Video IF am Dual op am Balanced m 20-watt pov Video synch DNR noise Hi-volt/curr	p amp	. \$7.95 6.95 	5.25 3.85 5.26 1.85 2.05 2.05 2.14
24942EX 23131EX 23211EX 23270EX 107140EX 243547EX 34278EX	LM741CN** LM747CN LT1004CZ-2.5 MC1350P LM1458N* LM1496N LM1875T LM1881N LM1894N ULN2003A*	DIP-8 DIP-14 TO-92 DIP-8 DIP-8 DIP-14 TO-220/5 DIP-8 DIP-14 DIP-16	Op amp. (U Dual 741 op 2.5V, micro Video IF am Dual op am Balanced m 20-watt pov Video synch DNR noise Hi-volt/curr Monolithic	p amp	. \$7.95 6.95 . 29 . 4.19 . 68 . 1.95 . 29 . 79 . 79 . 1.95 . 2.69 . 2.77 . 39 . 3.59	5.25 .2! 3.8! .52 1.85 .26 .59 2.05 2.14 .35 3.29
24942EX 23131EX 23211EX 23270EX 107140EX 243547EX 34278EX 34972EX	LM741CN** LM747CN LT1004CZ-2.5 MC1350P LM1458N* LM1496N LM1875T LM1881N LM1894N ULN2003A* XR2206	DIP-8 DIP-14 TO-92 DIP-8 DIP-8 DIP-14 TO-220/5 DIP-8 DIP-14 DIP-16	Op amp. (U Dual 741 op 2.5V, micro Video IF am Dual op am Balanced m 20-watt pov Video synch DNR noise Hi-volt/curr Monolithic Hi-volt. hi-co	De amp	. \$7.95 6.95 . 29 . 4.19 . 68 . 1.95 . 29 . 79 . 79 . 1.95 . 2.69 . 2.77 . 39 . 3.59 . 69	5.25 .25 3.85 .52 1.85 .20 .59 1.55 2.05 2.14 .35 3.29 .59
24942EX 23131EX 23211EX 23270EX 107140EX 243547EX 34278EX 34972EX 34315EX	LM741CN** LM747CN LT1004CZ-2.5 MC1350P LM1458N* LM1496N LM1875T LM1881N LM1894N ULN2003A* XR2206 ULN2803A*	DIP-8 DIP-14 TO-92 DIP-8 DIP-8 DIP-14 TO-220/5 DIP-8 DIP-14 DIP-16 DIP-16	Op amp. (U Dual 741 op 2.5V, micro Video IF am Dual op am Balanced m 20-watt pov Video synct DNR noise Hi-volt/curr Monolithic Hi-volt. hi-c Quad comp	LN2151)	. \$7.95 6.95 . 29 . 4.19 . 68 . 1.95 . 29 . 79 P) 79 . 1.95 . 2.69 . 2.77 . 39 . 3.59 . 69 . 26	5.25 .29 3.85 .52 1.85 .20 .56 2.05 2.14 .39 3.29 .56
24942EX 23131EX 23211EX 23270EX 107140EX 243547EX 34278EX 34972EX 34315EX 23296EX 23350EX 12183EX	LM741CN** LM747CN LT1004CZ-2.5 MC1350P LM1458N* LM1496N LM1875T LM1881N LM1894N ULN2003A* XR2206 ULN2803A* LM2901N LM2917N-8 CA3130E	DIP-8 DIP-14 TO-92 DIP-8 DIP-8 DIP-14 TO-220/5 DIP-8 DIP-14 DIP-16 DIP-16 DIP-18 DIP-14 DIP-18	Op amp. (U Dual 741 op 2.5V, micro Video IF am Dual op am Balanced m 20-watt pov Video synct DNR noise Hi-volt/curr Monolithic i Hi-volt. hi-c Quad comp Frequency t CMOS op a	p amp	. \$7.95 6.95 . 29 . 4.19 . 68 . 1.95 . 29 P) 79 . 2.69 . 2.69 . 3.59 . 69 . 69 . 26 . 26 . 245 . 81	5.28 .22 3.88 .52 1.88 .20 .55 2.00 2.14 .38 3.29 .55 .24
24942EX 23131EX 23211EX 23270EX 107140EX 243547EX 34278EX 34972EX 34972EX 34315EX 23296EX 23350EX 12183EX 12204EX	LM741CN** LM747CN LT1004CZ-2.5 MC1350P LM1458N* LM1496N LM1875T LM1881N LM1894N ULN2003A* XR2206 ULN2803A* LM2901N LM2917N-8 CA3130E CA3140E	DIP-8 DIP-14 TO-92 DIP-8 DIP-8 DIP-14 TO-220/5 DIP-8 DIP-14 DIP-16 DIP-16 DIP-18 DIP-14 DIP-8 DIP-8 DIP-8	Op amp. (U Dual 741 op 2.5V, micro Video IF am Dual op am Balanced m 20-watt pov Video synct DNR noise Hi-volt/curr Monolithic i Hi-volt. hi-c Quad comp Frequency t CMOS op a Bi-MOS op	LN2151)	. \$7.95 6.95 . 29 . 4.19 . 68 . 1.95 . 29 P) 79 . 2.69 . 2.77 . 39 . 3.59 . 69 . 26 . 245 . 81 . 59	5.2 <sup>1</sup> 3.88 5.5: 1.88 2.00 2.14 3.32 5.5 2.07 2.17 5.7 5.7
24942EX 23131EX 23211EX 23270EX 107140EX 243547EX 34278EX 34972EX 34315EX 23296EX 23350EX 12183EX 12204EX 12239EX	LM741CN** LM747CN LT1004CZ-2.5 MC1350P LM1458N* LM1496N LM1875T LM1881N LM1894N ULN2003A* XR2206 ULN2803A* LM2901N LM2917N-8 CA3130E CA3140E CA3161E	DIP-8 DIP-14 TO-92 DIP-8 DIP-8 DIP-14 TO-220/5 DIP-8 DIP-14 DIP-16 DIP-16 DIP-18 DIP-14 DIP-8 DIP-8 DIP-8 DIP-8 DIP-8 DIP-8	Op amp. (U Dual 741 op 2.5V, micro Video IF am Dual op am Balanced m 20-watt pov Video synct DNR noise Hi-volt/curr Monolithic i Hi-volt. hi-c Quad comp Frequency t CMOS op a Bi-MOS op BCD to 7-se	LN2151)	. \$7.95 6.95 . 29 . 4.19 . 68 . 1.95 . 29 P) 79 . 2.69 . 2.77 . 39 . 3.59 . 69 . 26 . 245 . 81 . 59 . 213	5.2 <sup>1</sup> 3.88 5.5: 1.88 2.2 5.5 2.00 2.1 <sup>1</sup> 33 3.2 <sup>2</sup> 5.7 7.7 7.7 5.1
24942EX 23131EX 23211EX 23270EX 107140EX 243547EX 34278EX 34278EX 34972EX 34315EX 23296EX 23350EX 12183EX 12204EX 12239EX 25216EX	LM741CN** LM747CN LT1004CZ-2.5 MC1350P LM1458N* LM1496N LM1875T LM1881N LM1894N ULN2003A* XR2206 ULN2803A* LM2901N LM2917N-8 CA3130E CA3140E CA3161E MC3479P	DIP-8 DIP-14 TO-92 DIP-8 DIP-8 DIP-14 TO-220/5 DIP-8 DIP-14 DIP-16 DIP-16 DIP-18 DIP-8 DIP-8 DIP-8 DIP-8 DIP-8 DIP-8 DIP-8 DIP-8 DIP-8 DIP-16 DIP-16	Op amp. (U Dual 741 op 2.5V, micro Video IF am Dual op am Balanced m 20-watt pov Video synct DNR noise Hi-volt/curr Monolithic t Hi-volt. hi-c Quad comp Frequency t CMOS op a Bi-MOS op BCD to 7-se Biphase ste	p amp	. \$7.95 6.95 	5.2! 3.8! 5.5! 1.8! 2.0! 5.5! 1.5! 2.0! 2.14 3.3! 3.2! 5.5! 1.7! 5.5! 1.7! 5.5! 1.9! 3.3!
24942EX 23131EX 23211EX 23270EX 107140EX 243547EX 34278EX 34972EX 34315EX 23296EX 23296EX 21283EX 12204EX 12239EX 12239EX 12239EX 12239EX 192516EX	LM741CN** LM747CN LT1004CZ-2.5 MC1350P LM1458N* LM1496N LM1875T LM1881N LM1894N ULN2003A* XR2206 ULN2803A* LM2901N LM2917N-8 CA3130E CA3140E CA3161E MC3479P LM3886T	DIP-8 DIP-14 TO-92 DIP-8 DIP-8 DIP-14 TO-220/5 DIP-8 DIP-14 DIP-16 DIP-16 DIP-18 DIP-8 DIP-8 DIP-8 DIP-8 DIP-8 DIP-8 DIP-8 DIP-8 DIP-16	Op amp. (U Dual 741 op 2.5V, micro Video IF am Dual op am Balanced m 20-watt pov Video synct DNR noise Hi-volt/curr Monolithic t Hi-volt. hi-c Quad comp Frequency t CMOS op a Bi-MOS op BCD to 7-se Biphase ste	p amp	. \$7.95 6.95 	5.25 3.88 5.26 5.59 1.55 2.06 2.14 3.35 3.29 5.59 5.59 5.59 5.59 5.59 5.59 5.59 5
24942EX 23131EX 23211EX 23270EX 107140EX 243547EX 34278EX 34972EX 34315EX 23296EX 23350EX 12183EX 12204EX 12239EX 25216EX 192516EX 24168EX	LM741CN** LM747CN LT1004CZ-2.5 MC1350P LM1458N* LM1496N LM1875T LM1881N LM1894N ULN2003A* XR2206 ULN2803A* LM2901N LM2917N-8 CA3130E CA3140E CA3140E CA3161E MC3479P LM3886T LM3900N	DIP-8 DIP-14 TO-92 DIP-8 DIP-8 DIP-14 TO-220/5 DIP-8 DIP-14 DIP-16 DIP-16 DIP-18 DIP-8 DIP-8 DIP-8 DIP-8 DIP-8 DIP-8 DIP-8 DIP-16	Op amp. (U Dual 741 op 2.5V, micro Video IF am Dual op am Balanced m 20-watt pov Video synct DNR noise Hi-volt/curr Monolithic Hi-volt. hi-c Quad comp Frequency t CMOS op a Bi-MOS op BCD to 7-sc Biphase ste 68W high p Quad amp.	LN2151)	. \$7.95 6.95 	5.25 3.88 5.26 5.59 1.55 2.05 2.14 3.35 3.29 5.59 5.59 3.39 3.39 6.65
24942EX 23131EX 23211EX 23270EX 107140EX 243547EX 34278EX 34972EX 34315EX 23296EX 23296EX 21283EX 12204EX 12239EX 12239EX 12239EX 12239EX 192516EX	LM741CN** LM747CN LT1004CZ-2.5 MC1350P LM1458N* LM1496N LM1875T LM1881N LM1894N ULN2003A* XR2206 ULN2803A* LM2901N LM2917N-8 CA3130E CA3140E CA3161E MC3479P LM3886T	DIP-8 DIP-14 TO-92 DIP-8 DIP-8 DIP-14 TO-220/5 DIP-8 DIP-14 DIP-16 DIP-16 DIP-18 DIP-8 DIP-8 DIP-8 DIP-8 DIP-8 DIP-8 DIP-8 DIP-8 DIP-16	Op amp. (U Dual 741 op 2.5V, micro Video IF am Dual op am Balanced m 20-watt pov Video synct DNR noise Hi-volt/curr Monolithic Hi-volt. hi-c Quad comp Frequency t CMOS op a Bi-MOS op BCD to 7-se Biphase ste 68W high p Quad amp. Bar-graph o	p amp	. \$7.95 6.95 	5.25 5.25 3.88 5.26 5.59 1.55 2.05 2.14 3.35 3.22 5.59 2.44 1.75 7.78 5.55 1.95 3.39 6.65 2.11 1.95

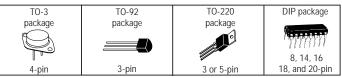


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Linea	Linear Series (continued) More @ www.Jameco.com/l								
Part No.	Cross Ref.	Pkg.	Description 1	10					
24272EX	LM3916N	DIP-18	VU meter display driver\$2.25	\$1.95					
243580EX	LM4040AIZ-5.0	TO-92	5.0V, precision micropower volt. reference 1.87	1.56					
25275EX	MC4044P	DIP-14	Frequency phase detector (11C44) 9.99	7.49					
29356EX	RC4136N	DIP-14	Quad op amp (XR4136)	.71					
243379EX	MM5453N	DIP-40	Liquid crystal display driver2.79	2.29					
27385EX	NE5532*	DIP-8	Dual low noise op amp	.43					
27406EX	NE5534	DIP-8	Low noise op amp	.69					
*10 pcs. in Linear series IC cabinet kit, pg 37									

Part No. Cross Ref. LMC7111AIN DIP-8 Tiny CMOS op amp w/ rail to rail I/O ... 7555IPA DIP-8 CMOS timer (LM555CN) ..... 51140EX ......36 DIP-8 241808EX ICL7665SCPA 2.19 241816EX ICL7673 DIP-8 Auto battery backup switch, 2.5V to 15V ...... 1.29 51879EX 8038CCPD DIP-14 Precision wave form generator ...... 3.19 Bi-directional, 18V dc motor driver .......95 **241875EX** FAN8082 DIP-8 241867EX FAN8200 DIP-14 Bi-directional, 2-ch, 18V stepper motor driver ..... .85 25021EX MC14411P DIP-24 Bit rate frequency generator ...... 6.95 241841EX MC14467 DIP-16 25064EX MC14490P DIP-16 Hex contact bounce eliminator ...... 6.95 6.25 241832EX MC145012 DIP-16 118586EX MC145151P% DIP-28 Parallel input PLL freq. synthesizer ......

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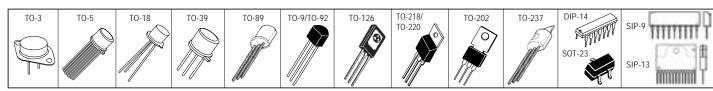


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						Forward	Input	Blocking	Isolation	Pric	ing
Part No.	Product No.	Mfg.	Fig.	Pins	Description	(V)	Current (mA)	Voltage (V)	(kV)	1	10
40985EX	4N25	*	1	6	Diode, NPN photo transistor	1.5	10	30	2.5	\$.22	\$.18
41005EX	4N26	<b>+</b>	1	6	Diode, NPN photo transistor	1.5	10	30	1.5	.25	.22
41056EX	4N35	<b>*</b>	1	6	Diode, NPN photo transistor	1.5	10	30	3.5	.39	.35
41021EX	4N32	<b>*</b>	3	6	Diode, NPN photo-darlington	1.5	10	30	2.5	.26	.24
41030EX	4N33	*	3	6	Diode, NPN photo-darlington	1.5	10	30	1.5	.25	.24
114091EX	H21A1	<b>*</b>	4	4	Single channel, slotted interrupter	1.7	60	30	_	.69	.64
114083EX	ISQ203	Isocom	6	16	Quad channel NPN photo transistor	1.5	20	30	7.5	2.95	2.65
24918EX	MCT6	•	2	8	Dual channel NPN photo transistor	1.3	100	30	7.5	.49	.45
26278EX	MOC3010	<b>*</b>	5	6	Bilateral triac driver	1.5	50	250	7.5	.49	.45
95038EX	MOC3021	<b>*</b>	5	6	Bilateral triac driver	1.5	10	400	7.5	.46	.41
160338EX	PS2501-4	<b>*</b>	8	16	Photo Darlington & Transistor/Detector	1.2	20	_	_	1.09	1.02
160362EX	PS2502-4	*	7	16	Photo Darlington & Transistor/Detector	1.2	10	_	_	1.76	1.61

Manufacturer varies

# NTE Top 200 Replacement and Design Semiconductors

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Integr	Integrated Circuits							
Part No.	Cross Ref.	Pkg.	Description 1	10				
260161EX	NTE778A	DIP-8	Dual operational amplifier\$2.38	\$2.29				
260179EX	NTE823	DIP-8	Low voltage audio amplifier	1.49				
260187EX	NTE858M	DIP-8	Dual low noise JFET input op amp 2.62	2.41				
260195EX	NTE859	DIP-14	Quad low noise JFET input op amp 3.73	3.55				
260216EX	NTE941	TO-5/8	Operational amplifier 5.78	5.75				
260224EX	NTE941M	DIP-8	Operational amplifier92	.88				
260232EX	NTE947D	DIP-14	Dual operational amplifier 4.93	4.58				
260241EX	NTE955M	DIP-8	Timing circuit	1.25				
260347EX	NTE987	DIP-14	Quad low power operational amplifier 1.96	1.85				
260355EX	NTE999	TO-92	Adjustable precision shunt regulator 1.02	.99				
260128EX	NTE1714M	DIP-8	Remote control amplifier/driver 4.99	4.19				
260136EX	NTE2014	DIP-16	7-channel darlington array drivers 2.84	2.69				
260144EX	NTE2018	DIP-18	8-channel darlington array drivers 3.29	3.15				

#### Integrated Circuits (continued)

Part No.	Cross Ref.	Pkg.	Description	1	10
259291EX	NTE4001B	DIP-14	Quad 2-input NOR gate	\$.68	\$.65
259303EX	NTE4006B	DIP-14	18 stage static shift register	2.82	2.77
259311EX	NTE4013B	DIP-14	Dual D flip-flop w/ set/reset	1.10	1.06
259320EX	NTE4049	DIP-16	Hex buffer/converter (inverting)	1.22	1.18
259338EX	NTE4066B	DIP-14	Quad bilateral switch	1.42	1.37
259346EX	NTE4093B	DIP-14	Quad 2-input NAND Schmitt trigger	1.05	1.02
260152EX	NTE7039	SIP-13	Vert. deflection output circuit w/ drive circuit	3.19	3.09
259354EX	NTE7407	DIP-14	Hex buffer/driver	1.29	1.25
259362EX	NTE7408	DIP-14	Quad 2-input AND gate	1.06	1.03
259389EX	NTE7475	DIP-16	4-bit bi-stable latch	3.89	3.71
259371EX	NTE74121	DIP-14	Monostable multivibrator	2.29	2.21
259397EX	NTE75189	DIP-14	Quad line receiver	1.22	1.18

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#### **Voltage Regulators**

TOICU	go moge		•	
Part No.	Cross Ref.	Pkg.	Description 1	10
261358EX	NTE309K	TO-3	+5V, 1A voltage regulator\$8.02	\$7.85
260208EX	NTE931	TO-3	+5V, 3A voltage regulator 11.60	11.02
260259EX	NTE960	TO-220	+5V, 1A voltage regulator 1.65	1.59
260267EX	NTE961	TO-220	-5V, 1A voltage regulator 1.65	1.59
260275EX	NTE962	TO-220	+6V, 1A voltage regulator 1.32	1.28
260283EX	NTE964	TO-220	+8V, 1A voltage regulator 1.29	1.25
260291EX	NTE966	TO-220	+12V, 1A voltage regulator 1.65	1.59
260304EX	NTE967	TO-220	-12V, 1A voltage regulator 1.65	1.59
260312EX	NTE968	TO-220	+15V, 1A voltage regulator 1.65	1.59
260321EX	NTE971	TO-220	-24V, 1A voltage regulator 4.65	4.39
260339EX	NTE972	TO-220	+24V, 1A voltage regulator 1.65	1.59
261331EX	NTE1914	TO-3	+12V, 1A voltage regulator 3.75	3.72
261340EX	NTE1915	TO-3	-12V, 1A voltage regulator 3.89	3.85

#### **Transistors**

iransi	ISTOLZ			
Part No.	Cross Ref.	Pkg.	Description	1 10
261083EX	NTE47	TO-92	NPN high gain, low noise\$.	61 \$.59
261104EX	NTE48	TO-92	NPN darlington, high current	95 .92
261112EX	NTE55	TO-220	PNP complimentary trans., high freq. driver 3.	56 3.39
261139EX	NTE85	TO-92	NPN general purpose	84 .79
260507EX	NTE100	TO-18	PNP germanium comp. trans. oscillator 3.	15 3.09
260515EX	NTE102	TO-18	PNP germanium comp. trans. pwr output driver 3.	69 2.49
260523EX	NTE108	TO-92	NPN high frequency amp1.	34 1.29
260531EX	NTE123	TO-18	NPN general purpose audio amp., switch	75 .73
260540EX	NTE123A	TO-18	NPN comp. transistor, general purpose 1.	07 1.04
260558EX	NTE123AP	TO-92	NPN audio amplifier switch	86 .79
260566EX	NTE128	TO-39	NPN comp. trans., audio output, video driver 1.	19 1.15
260574EX	NTE128P	TO-237	NPN comp. transistor, general purpose 1	29 1.25
260582EX	NTE129	TO-237	PNP comp. transistor, general purpose 2	26 2.19
260591EX	NTE130	TO-3	NPN audio pwr amp., medium speed switch 2.	76 2.52
260603EX	NTE154	TO-39	NPN high voltage video output 2.	
260611EX	NTE159	TO-92	PNP audio amplifier switch	96 .91
260620EX		TO-92	NPN darlington pre-amp., med. sp. switch	
260638EX		TO-3	NPN comp. trans., hi volt. med. pwr switch 3.3	
260646EX		TO-3	NPN high power audio amplifier 6.	
260654EX		TO-126	NPN comp. trans. audio pwr amp., switch 1.3	
260662EX		TO-126	PNP comp. trans. audio pwr amp., switch 1.	
260671EX		TO-220	NPN comp. trans. audio pwr output&med. pwr switch 2.	
260689EX		TO-92	NPN low noise, high gain amplifier	
260777EX		TO-92	PNP low noise, high gain amplifier	
260822EX		TO-3	NPN color TV horizontal output	
260857EX		TO-3	NPN comp. trans. darlington power amp 5	
260865EX		TO-126	NPN comp. trans. darlington power amp 1.	
260881EX		TO-220	NPN comp. trans. darlington power amp	
260890EX		TO-220	PNP comp. trans. darlington power amp 2.	
260902EX 260911EX		TO-220 TO-220	NPN comp. trans. darlington power amp	
260911EX 260929EX		TO-220	PNP comp. trans. darlington power amp	
260927EX 260937EX		TO-220	NPN comp. trans. hi volt., general purpose	
260945EX		TO-92	PNP comp. trans. hi volt., general purpose	
260953EX		TO-92	NPN comp. transistor audio power amp	
260961EX		TO-92	PNP comp. transistor audio power amp	
260970EX		TO-220	NPN comp. trans. medium power amp., switch	
260988EX		TO-39	NPN frequency multiplier driver, VHF/UHF	
260996EX		TO-39	NPN high gain, low noise amp	
261008EX		TO-220	NPN comp. trans. audio power amp., switch	
261016EX		TO-220	PNP comp. trans. audio power amp., switch	
261024EX		TO-126	NPN comp. transistor audio amp. driver	
261032EX		TO-126	PNP comp. transistor audio amp. driver	
261041EX		TO-220	PNP comp. trans. pwr amp. driver output switch	
261059EX		TO-220	NPN power amp. high voltage switch	
_U.JU/LA		. 5 225		,,

#### Transistors (Continued)

Part No.	Cross Ref.	Pkg.	Description 1	10
261067EX	NTE397	TO-39	PNP power amp. & high speed switch \$2.74	\$2.51
261075EX	NTE399	TO-92	NPN high voltage video amp 2.75	2.64
261091EX	NTE473	TO-39	NPN RF power driver 5.17	5.15
260700EX	NTE2300	TO-3	NPN high voltage horizontal output 5.12	5.15
260718EX	NTE2311	TO-218	NPN high voltage high speed switch 14.24	13.45
260726EX	NTE2312	TO-220	NPN high voltage high speed switch 4.74	4.49
260734EX	NTE2322	DIP-14	PNP quad general purpose	2.57
260742EX	NTE2324	TO-220	NPN color TV horiz. deflection output 8.55	8.15
260751EX	NTE2329	TO-126	PNP comp. trans. audio power output 5.75	5.69
260769EX	NTE2331	TO-220	NPN color TV horiz. deflection output w/ damper diode 6.85	6.79
260785EX	NTE2343	TO-220	NPN comp. trans., darlington pwr amp., switch2.07	1.95
260793EX	NTE2344	TO-220	PNP comp. trans., darlington pwr amp., switch 1.65	1.55
260806EX	NTE2349	TO-3	NPN darlington trans., hi curr. gen. purpose15.62	15.39
260814EX	NTE2353	TO-220	NPN TV horiz. deflection output w/ damper diode 5.73	5.69
260831EX	NTE2408	SOT-23	NPN general purpose amp. (2/pk.) 1.25	1.19
260849EX	NTE2409	SOT-23	PNP general purpose amp. (2/pk.) 1.25	1.19
260873EX	NTE2543	TO-220	NPN darlington motor/relay driver 3.29	3.25
261121EX	NTE6410	TO-92	Unijunction transistor 4.79	4.75

#### **JFETs**

Part No.	Cross Ref.	Pkg.	Description	1	10
260427EX	NTE457	TO-92	N-ch JFET general purpose\$1	.04	\$.99
260435FX	NTF458	TO-92	N-ch IEET low noise audio freg amp 1	70	1 65

#### **MOSFETs**

Part No.	Cross Ref.	Pkg.	Description	1	10
260443EX	NTE222	TO-39	Dual gate N-channel MOSFET \$10.5	6 \$9	.59
260451EX	NTE2389	TO-220	N-ch enhancement mode hi speed switch 5.3	5 5	.15
260460EX	NTE2394	TO-126	N-ch enhancement mode hi speed switch 11.2	5 11	.19
260478EX	NTE2395	TO-220	N-ch enhancement mode high speed switch 5.6	0 5	.39
260486EX	NTE2397	TO-220	N-ch enhancement mode high speed switch 5.6	0 5	.39
260494EX	NTE2398	TO-220	N-ch enhancement mode high speed switch 3.7	5 3	.69

#### **Diodes**

Part No.	Cross Ref.	Pkg.	Description	1	10
259418EX	NTE109	DO-7	Germanium fast switching\$	1.18	\$1.14
259426EX	NTE112	DO-35	Silicon small signal schottky	1.48	1.34
259434EX	NTE177	DO-35	Silicon general purpose	30	.28
259442EX	NTE519	DO-7	Silicon ultra fast switch	34	.31
259451EX	NTE570	DO-7	Silicon controlled avalanche diode	1.23	1.19
259469EX	NTE583	DO-7	Schottky RF switch	1.27	1.22
259477EX	NTE588	DO-7	Silicon 200V, 3A fast switch	1.25	1.21
259485EX	NTE618	Non-Std	Silicon tuning diode for AM radio, varactor	1.79	1.75

#### **Zener Diodes**

Part No.	Cross Ref.	Pkg.	Voltage	Wattage	Oty. 1	10
259565EX	NTE5010A	DO-35	5.1V	1/2W	1/pk \$. <b>39</b>	\$.36
259573EX	NTE5021A	DO-35	12V	1/2W	1/pk	.45
259581EX	NTE5024A	DO-35	15V	1/2W	1/pk	.48
259493EX	NTE135A	DO-35	5.1V	1W	2/pk	.51
259506EX	NTE136A	DO-35	5.6V	1W	2/pk	.41
259514EX	NTE138A	DO-35	7.5V	1W	2/pk	.50
259522EX	NTE142A	DO-35	12V	1W	2/pk	.55
259531EX	NTE143A	DO-35	13V	1W	2/pk	.41
259549EX	NTE145A	DO-35	15V	1W	2/pk	.41
259557EX	NTE147A	DO-35	33V	1W	2/pk	.41
259590EX	NTE5077A	DO-35	18V	1W	2/pk 1.42	1.38
259602EX	NTE5105A	DO-35	200V	1W	2/pk 1.86	1.78
259611EX	NTE5130A	DO-35	15V	5W	1/pk 1.46	1.39
259629EX	NTE5141A	DO-35	30V	5W	1/pk 2.05	2.01
259637EX	NTE5164A	DO-35	180V	5W	1/pk 2.05	2.01

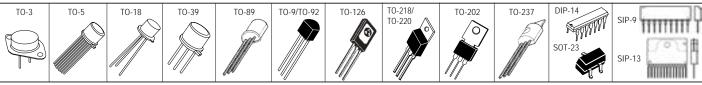






# NTE Top 200 Replacement and Design Semiconductors

Please call our sales rep. if you cannot find the NTE product replacement you are trying to find or for special pricing on large quantity orders.



						/	
Rectif	fiers						
Part No.	Cross Ref.	Pkg.	Description	PRV	AFC	1	1
259813EX	NTE116	DO-41	Rectifier	600V	1A	\$.49	\$.4
259821EX	NTE125	DO-41	Rectifier	1000V	2.5A	50	.4
259830EX	NTE156	DO-41	Rectifier	1000V	3A	67	.6
259645EX	NTE506	DO-41	Rectifier	1400V	2A	1.10	1.0
259848EX	NTE541	DO-35	Rectifier	8.4kV	50A	8.37	8.2
259856EX	NTE552	DO-41	Rectifier	600V	1A	93	.9
259864EX	NTE558	DO-41	Rectifier	1500V	1A	1.68	1.6
59872EX	NTE569	DO-41	Rectifier	600V	3A	1.12	1.0
59881EX	NTE574	DO-41	Rectifier	400V	1A	58	.!
59899EX	NTE576	DO-41	Rectifier	400V	5A	1.86	1.7
59901EX	NTE577	DO-41	Rectifier	1000V	5A	3.58	3.4
59910EX	NTE580	SOD57	Rectifier	600V	3A	2.71	2.
60021EX	NTE598	TO-220/2	Rectifier	600V	8A	2.16	2.
59928EX	NTE5800	DO-41	Rectifier	50V	3A		.:
59936EX	NTE5801	DO-41	Rectifier	100V	3A	48	
59944EX	NTE5804	DO-41	Rectifier	400V	3A	60	.!
59952EX	NTE5806	DO-41	Rectifier	600V	3A	94	
59961EX	NTE5809	DO-41	Rectifier	1000V	3A	1.39	1.3
59979EX	NTE5812	T6L	Rectifier	100V		91	
59987EX	NTE5814	T6L	Rectifier	400V	6A	1.52	1.
	NTE5815	T6L	Rectifier	600V		2.49	2.
60005EX	NTE5817	T6L	Rectifier	1000V	6A	2.28	2.
	NTE5870	DO-4	Rectifier	50V		2.60	2.
	NTE6013	TO-220	Rectifier	600V		isolated 3.77	3.
	NTE6240	TO-220	Rectifier	200V			3.
59653EX		BR8D	Bridge rectifier	100V		1.10	1.
59661EX		BR8D	Bridge rectifier	200V		1.75	1.
59670EX		BR8D	Bridge rectifier	400V		1.93	1.
59688EX		BR8D	Bridge rectifier			2.82	2.
	NTE5304	WOM	Bridge rectifier	400V		1.32	1.3
	NTE5305	WOM	Bridge rectifier	600V		1.47	1.4
	NTE5312	GBPC	Bridge rectifier	100V		3.88	3.
	NTE5313	GBPC	Bridge rectifier	200V		3.82	3.0
	NTE5314	GBPC	Bridge rectifier	400V		3.93	3.
	NTE5322	TB35	Bridge rectifier	200V		5.64	5.3
	NTE5326	TB35	Bridge rectifier	600V			7.
	NTE5329	BR8D	Bridge rectifier	200V		3.63	3.4
	NTE5327	DIP-4	Bridge rectifier	600V		1.52	1.4
	NTE5332		Bridge rectifier	200V		9.00	8.
59792EX	NTE5340		Bridge rectifier	600V		11.37	10.
	NTE5342 NTE5344		Bridge rectifier			12.78	12.2
.J-70UJĽA	IV1E3344	พบท-3ใน	bridge rectifier	10000	40A	12.76	12.4

#### Silicon Controlled Rectifiers (SCR)

Part No.	Cross Ref.	Pkg.	Description	1	10
260056EX	NTE5401	TO-92	60 VRM 0.8A	. \$.97	\$.91
260064EX	NTE5402	TO-92	100 VRM 0.8A	97	.89
260072EX	NTE5404	TO-92	200 VRM 0.8A	. 1.33	1.29
260081EX	NTE5457	TO-202	400 VRM 4A	. 1.33	1.29
260099EX	NTE5458	TO-202	600 PRV 4A	. 2.03	1.99

#### Diacs/Triacs/Sidacs/TVS

Part No.	Cross Ref.	Pkg.	Description	1	10
261278EX	NTE4900	DO-35	TVS, 5.0V\$2	2.18	\$2.15
260110EX	NTE6404	TO-89	SUS, SI, 1.0A	8.86	8.79
259400EX	NTE6408	DO-35	Diac	.94	.90
260101EX	NTE6419	Non-Std	Sidac, 110-125V	2.06	1.99
261147EX	NTE5629	TO-202	Triac, 400 VRM, 4A	1.98	1.89
261155EX	NTE5656	TO-9	Triac, 400 VRM, 0.8A	1.08	1.05

#### Varistors (MOV)

Part No.	Cross Ref.	Pkg.	Description	1	10
261286EX	NTE1V020	8.5mm	20V <sub>RMS</sub> , 20VDC, 1.5 joules	\$1.03	\$.99
261294EX	NTE1V130	8.5mm	135V <sub>RMS</sub> , 180VDC, 10 joules	1.08	1.03
261307EX	NTE2V130	16mm	135V <sub>RMS</sub> , 180VDC, 39 joules	1.85	1.79
261315EX	NTE2V250	16mm	240V <sub>RMS</sub> , 320VDC, 70 joules	2.66	2.54
261323EX	NTE524V25	23mm	240V <sub>RMS</sub> , 320VDC, 129 joules	2.40	2.35

#### **Thermal Fuses**

Part No.	Cross Ref.	Description	Dimensions	1 10
261163EX	NTE8076	TCO 77°C, 171°F	3.2"L x 1.6"Dia \$1.1	3 \$1.09
261171EX	NTE8085	TCO 87°C, 189°F	3.2"L x 1.6"Dia 1.2	7 1.23
261180EX	NTE8090	TCO 93°C, 200°F	3.2"L x 1.6"Dia 1.1	3 1.09
261198EX	NTE8096	TCO 98°C, 208°F	3.2"L x 1.6"Dia 1.1	3 1.09
261201EX	NTE8098	TCO 100°C, 212°F	3.2"L x 1.6"Dia 1.1	3 1.09
261219EX	NTE8103	TCO 104°C, 220°F	3.2"L x 1.6"Dia 1.1	3 1.09
261227EX	NTE8118	TCO 121°C, 250°F	3.2"L x 1.6"Dia 1.1	3 1.09
261235EX	NTE8139	TCO 141°C, 286°F	3.2"L x 1.6"Dia 1.2	7 1.23
261243EX	NTE8181	TCO 184°C, 364°F	3.2"L x 1.6"Dia 1.1	3 1.09
261251EX	NTE8213	TCO 216°C, 421°F	3.2"L x 1.6"Dia 1.1	3 1.09
261260EX	NTE8242	TCO 240°C, 464°F	3.2"L x 1.6"Dia	3 1.09

#### **LEDs**

Part No.	Cross Ref.	Pkg.	Description 1	10
260363EX	NTE1866	SIP-9	5-point LED VU scale bar level meter driver \$2.01	\$1.96
260371EX	NTE3024*	T13/4	Green 5mm, 2.1VF@20mA, 8.7mcd@10mA, 565nm 1.31	1.24
* 2 ea. per	- pack			

#### **Optoisolators**

Part No.	Cross Ref.	Pkg.	Description 1	10
260380EX	NTE3040	DIP-6	NPN transistor output, 1.5V @ 10mA \$1.73	\$1.68
260398EX	NTE3041	DIP-6	NPN transistor output, 1.15V @ 10mA 1.75	1.69
260401EX	NTE3044	DIP-6	NPN darl. trans. output, 1.15V @ 10mA 2.33	2.25
260419EX	NTE3047	DIP-6	Triac driver output, 1.15V @ 10mA 2.41	2.04

#### **NTE Hardware**

Part No.	Cross Ref.	Description	on 1	10
259151EX	NTE303	1 gram tu	ube of heat sink compound (5/pk.)\$1.63	\$1.55
259194EX	TP0001	TO-3	Thermo pad (5/pk.)	1.29
259282EX	TP0002	TO-66	Thermo pad (5/pk.)	1.12
259207EX	TP0003	DO-5	Thermo pad (5/pk.)	.78
259215EX	TP0004	TO-126	Thermo pad (5/pk.)	.65
259223EX	TP0005	TO-218	Thermo pad (5/pk.)	1.33
259231EX	TP0006	TO-220	Thermo pad (5/pk.)	.95
259240EX	TP0007	DO-5	Thermo pad (5/pk.)	.98
259258EX	TP0008	TO-3	Thermo pad (5/pk.)	1.12
259266EX	TP0009	TO-36	Thermo pad (5/pk.)	1.35
259274EX	TP0010	TO-3PML	Thermo pad (5/pk.)	2.20
259178EX	NTE416	DIP-16	16-pin DIP socket 2.11	1.85
259186EX	NTE423	DIP-8	8-pin DIP socket 1.10	1.06
259160EX	NTE422	TO-220	Insulator kit	.97



See page 14 for Heat Sinks, Mounting Kits and Heat Sink Compound.





Call for pricing on quantities over 5000 - we carry major manufacturers.

Any transistor and diode may be supplied in ammo style tape by special order - 1000 piece min.































DO-27A/DO-41/DO-35

#### **Transistors**

\* Prepackaged: order in increments of 10

						Min.	Prici	ing
Part No.	Product No.	Mfr.	Package	Desc.	Vceo	h <sub>FE</sub> @ Ic	1	10
33048EX	TIP31A	*	TO-220	NPN	60	10 @ 3A	\$.49	\$.39
33064EX	TIP32A	*	TO-220	PNP	60	10 @ 3A	.39	.36
179240EX	TIP102	FSC	TO-220	NPN	100	1k @ 3A	.53	.47
32993EX	TIP120	*	TO-220	NPN	60	1k @ 3A	.49	.45
179291EX	TIP120	FSC	TO-220	NPN	60	1k @ 3A	.53 .41	.37
120416EX	TIP122	*	TO-220	NPN	100	1k @ 3A	.38	.32
38228EX	2N2219A	*	TO-39	NPN	40	100 @ .15A	.59 .41	.37
28628EX	PN2222	*	TO-92	NPN	30	100 @ .15A	*	.065
38236EX	2N2222A	*	TO-18	NPN	40	100 @ .15A	.39	.35
28644EX	PN2907	<b>*</b>	TO-92	PNP	40	100 @ .15A	*	.125
38279EX	2N2907A	*	TO-18	PNP	60	100 @ .15A	.36	.34
25831EX	MJE2955T	*	TO-220	PNP	60	20 @ 4A	.55 .51	.44
38295EX	2N3053	*	TO-39	NPN	40	25 @ .15A	.47	.43
38308EX	2N3055	*	TO-3	NPN	60	15 @ 10A	.95	.85
25857EX	MJE3055T	*	TO-220	NPN	60	20 @ 4A	.52 .48	.46
209242EX	2N3771	*	TO-3	NPN	40	15 @ 15A	1.89	1.75
38359EX	2N3904	<b>*</b>	TO-92	NPN	40	100 @ .01A	*	.075
178597EX	2N3904	FSC	TO-92	NPN	40	100 @ .01A	*	.09
178618EX	2N3906	FSC	TO-92	PNP	40	100 @ .01A	*	.09
38421EX	2N4401	*	TO-92	NPN	40	100 @ .15A	*	.07
38447EX	2N4403	*	TO-92	PNP	40	100 @ .15A	*	.08
194600EX	2N6059	+	TO-3	NPN	100	750 @ 6A	1.59	1.55

<sup>♦</sup> Manufacturer varies FSC = Fairchild Semiconductor

#### Small-Signal High-Voltage

Prepackaged: order in increments of 10 or 100

	•	-	-				
Part No.	Product No.	Package	Desc.	Vceo	Min. h <sub>FE</sub> @Ic (mA)	10	100
178546EX	MPSA42	TO-92	NPN	300	40 @ 10	\$.086	\$.061

#### **Small-Signal General-Purpose**

Prepackaged: order in increments of 10 or 100

Part No.	Product No.	Package	Desc.	Vceo	Min. h <sub>FE</sub> @Ic (mA)	10	100
178511EX	PN2222A	TO-92	NPN	40	100 @ 150	\$.12	\$.08
178520EX	PN2907A	TO-92	PNP	-60	100 @ 150	.07	.046
38375EX	2N3906	TO-92	PNP	40	100 @ 10	.05	.04

#### N-Channel MOSFETs

				Drain Source	Min. On-State	Prio	ing
Part No.	Prod. No.	Mfr.	Package	Brkdwn Volt.	DS Current	1	10
178669EX	2N7000	FSC	TO-92	60VDC	0.2A	\$.23	\$.19
209058EX	BUZ72L	<b>*</b>	TO-220	100VDC	10.0A	.77	.55
209234EX	IRF510	<b>*</b>	TO-220	100VDC	5.6A	.69	.59
209226EX	IRF520	<b>*</b>	TO-220	100VDC	10.0A	.55	.48
210518EX	IRF540	<b>*</b>	TO-220	100VDC	27.0A	1.05	.95
210542EX	IRF640	*	TO-220	200VDC	18.0A 4	.99 .69	.65
184719EX	IRF840	•	TO-220	500VDC	8.0A	1.49	1.29

#### Jameco offers our

FSC = Fairchild Semiconductor

#### Low-Price Guarantee

We'll match the print advertised price of any like product. It's that simple!

#### **Full Wave Bridge Rectifiers**

Part No.	Product No.	Mfr.	Package	Description	1	10
103018EX	W02G	*	WO type	200 PRV, 1A	\$.38	\$.32
103042EX	DF02M	*	4-pin DIP	200 PRV, 1A	.35	.30
103034EX	DF06M	*	4-pin DIP	600 PRV, 1A	.32	.30
145429EX	KBP02M	*	KBP type	200 PRV, 1.5A	46 .40	.35
25574EX	MDA990-3	*	179-01	200 PRV, 30A	3.99	3.45

<sup>♦</sup> Manufacturer varies

#### Triacs

Part No.	Product No.	Mfr.	Package	Description	1	10
140425EX	2N6071A	*	TO-225AA	200 Vdrm, 4A	49\$.29	\$.27
31827EX	SC146M	*	TO-220	Triac,600 Vdrm,10A (2N6344)	1.99	1.69

<sup>♦</sup> Manufacturer varies

#### Rectifiers

Prepackaged: order in increments of 10 or 100

Part No.	Product No.	Mfr.	Package	Description	10	100
35975EX	1N4001	*	DO-41	50 PRV,1A	\$.035	\$.025
76961EX	1N4002	*	DO-41	100 PRV,1A	.039	.025
76970EX	1N4003	*	DO-41	200 PRV,1A	.035	.025
36011EX	1N4007	*	DO-41	1000 PRV,1A	.038	.029
36265EX	1N5404	*	DO-27A	400 PRV, 3A	.10	.09
36273EX	1N5408	*	DO-27A	1000 PRV, 3A	.15	.11
35991EX	1N4004	*	DO-41	400 PRV,1A	.04	.025
177949EX	1N5817	*	DO-204AL	20 PIV, 1A	.11	.09
177818EX	T6A100L	*	T6L	1000 PIV, 6A	.65	.59

<sup>♦</sup> Manufacturer varies

#### Silicon Controlled Rectifiers Prepackaged: order in increments of 10 or 100

Part No.	Product No.	Mfr.	Package	Description	10	100
119802EX	2N5060	<b>*</b>	TO-92	25 PRV,0.8A \$	<sup>29</sup> \$.19	\$.15
14761EX	C122M	*	TO-220	600 PRV,8A(isolated)	1.35	1.25

<sup>♦</sup> Manufacturer varies

#### **Zener Diodes**

Prepackaged: order in increments of 10 or 100 Part No. Product No. Package Mfr Description 10 100 178781EX 1N4733A VSH DO-41 5.1V @ 49mA 1 W \$.06 36097EX 1N4733A DO-41 5.1V @ 49mA 1 W .08 .065 36118EX 1N4734A ٠ DO-41 5.6V @ 45mA 1.W .064 05 1N4735A VSH DO-41 6.2V @ 41mA 1 W

#### **Switching Diodes**

Prepackaged: order in increments of 10 or 100

12.0V @ 21mA 1 W

	9			· -		
Part No.	Product No.	Mfr.	Package	Description	10	100
179207EX	1N914	VSH	DO-35	100 PRV (Switching)	\$.05	\$.025
35967EX	1N3600	<b>*</b>	DO-35	50 PRV @ 100μa, 200mA	.045	.029
179215EX	1N4148	VSH	DO-35	100 PRV (Switching)	.04	.03
36038EX	1N4148	<b>*</b>	DO-35	75 PRV @ 50μa, 10mA	.036	.027

<sup>♦</sup> Manufacturer varies VSH = Vishay

#### Black Magic Telephone Ring Generator

Switching inverter that produces low-frequency alternating current to signal telecom ringers or equivalents. Nominal output voltage: 86 Vrms
 No reverse polarity protection

Part No. Product No. Series Resistor Frequency





♦ Manufacturer varies



<sup>♦</sup> Manufacturer varies VSH = Vishay

Thermalloy IERC AAVID Wakefield

Mfr. Cross

# COLOR CODE LEGEND... NEW SALE REFURBISHED CLOSEOUT

34139EX

34121EX

#### **Heat Sinks**

Our TO-3/TO-218/TO-220 heat sinks are made from black anodized aluminum (except for P/N 107297EX which is light weight aluminum). They can be mounted horizontally or vertically depending on your applications. P/N 164734EX has mounting clips and can be mounted vertically with solderable mounting tabs.





189835EX



TO-3 and TO-220

heat sink insulator assemblies

**Heat Sink** 

**Mounting Kits** 

<ul> <li>10 kits</li> </ul>	per pack		
Part No.	Туре	Description	1 10
34139EX	TO-3	12-piece kit \$3.9!	5 \$3.59
34121EX	TO-220	5-piece kit 3.9!	5 3.55



#### **Heat Sink Compound**

Improves transfer of energy across the metal to metal interface between transistor or rectifier to heat sink. • Opaq. white

Part No.	Product No.	Weight	1	10
167249EX	THM250	2 oz	\$9.95	\$8.96

#### Part No. Watts Size (L" x W" x H") 10 Reference No. Туре 16512EX DUDE4 TO-3 30.0 4.8 x 1.5 x 1.3 \$2.95 \$2.75 635-5B2 TO-3 8.0 1.9 x 1.4 x 0.5 158051EX 577102B00000 TO-220 2.0 .75 x .52 x .38 .39 .35 107297EX TO-220 0.8 x 1.0 x 0.4 .49 .45 PSC2-U (cup-style) 1.5 TO-220 164734EX THM6072 5.0 1.4 x 1.8 x 0.4



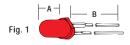
# LEDs and Displays

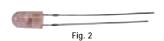
Pricing

#### **High-Output LEDs**

· Typical DC forward current 20mA

#### See page 15 for LED Mounting Hardware





	Mfr. Cross		Emitting	Lens/Feature	LED	Diameter	Dimer	nsions	Lead	Typical	Typical	Wavelength	Pric	ing
Part No.	Reference No.	Fig.	Color	Description	Size	inch/mm	A"	B"	Spacing	Vf @ If (mA)	mcd @ mA	nm	1	10
217525EX	MCDPW-3004C	1	White	Water clear	T1	.119/3	0.18	1.00	0.10	3.8 @ 20	3000 @ 20	_	\$2.99	\$2.85
142893EX	CLP1509	1	White	Water clear	T1 <sup>3</sup> / <sub>4</sub>	.197/5	0.34	0.79	0.08	3.6 @ 20	3700 @ 20	_	3.95	3.59
183231EX	T18W133196	1	White	Water clear	T1 <sup>3</sup> / <sub>4</sub>	.197/5	0.30	1.06	0.08	3.6 @ 20	3000 @ 20	_	2.95	2.65
183222EX	MCDL513SBC4	1	Blue	Water clear	T1 3/4	.197/5	0.29	1.02	0.08	5.0 @ 20	3000 @ 20	470	3.25	2.95
183214EX	MCDPG503PCI	1	Green	Water clear	T1 <sup>3</sup> / <sub>4</sub>	.197/5	0.30	1.04	0.08	3.5 @ 20	2200 @ 20	515	2.95	2.65
131895EX	TLSH180P	1	Orange	Water clear	T1 <sup>3</sup> / <sub>4</sub>	.197/5	0.39	0.80	0.10	2.1 @ 20	7000 @ 20	623	2.49	2.19
197683EX	BVT5E1QT4ER	1	Orange Red	Water clear	T1 <sup>3</sup> / <sub>4</sub>	.197/5	0.29	1.08	0.08	2.3 @ 20	4650 @ 20	634	.69	.59
152864EX	LT1873-81	1	Super Brt.	Water clear	T1 3/ <sub>4</sub>	.197/5	0.34	0.89	0.10	1.7 @ 20	1000 @ 20	660	.29	.24
197616EX	BVU5E1QH4E	1	Red	Water clear	T1 <sup>3</sup> / <sub>4</sub>	.197/5	0.30	1.05	0.08	1.8 @ 20	2180 @ 20	630	.39	.35
215597EX	LT2K33-81-UC9T	1	Yellow	Water clear	T1 3/4	.197/5	0.31	0.89	0.10	2.2 @ 20	5000 @ 20	590	.59	.55
197675EX	BVT5E1TT4E	1	Yellow	Water clear	T1 <sup>3</sup> / <sub>4</sub>	.197/5	0.30	1.08	0.08	2.3 @ 20	2800 @ 20	592	.45	.36
197641EX	BVT529T13E	2	Yellow	Yellow transparent	Oval	.170/.220	0.29	1.04	0.08	2.3 @ 20	7800 @ 20	590	.69	.62

#### **LED Displays**

The general advantages of LED displays compared to incandescent types include:

- Longer lifetime (averaged more than 300,000 hours) Lower power consumption
- · Compact size suitable for instrumentation and graphic representations

- · Soldering bath: not more than 5 seconds @ 260°C
- Soldering iron: not more than 3 seconds @ 300°C under 30W







LITEON



17187EX

TICCOS INSTRUMENTS



32951EX

118906FX

7-Segment Displays

	Mfr. Cross	Character	Illuminated	Buss	Pins/	Typical	Typical	Wavelength	Decimal	Prici	ng
Part No.	Reference No.	Height	Color	Polarity*	Leads	Vf @ If (mA)	mcd @ mA	nm	Point #	1	10
24740EX	LSD3221-11	.300"	Red	CA	11	2.1 @ 20	2.5 @ 20	697	LHDP	\$.79	\$.72
24782EX	LSD3211-11	.300"	Red	CC	10	2.1 @ 20	2.5 @ 20	697	RHDP	.89	.75
17187EX	LSD5051-11	.500"	Red	CC	10	2.1 @ 20	0.9 @ 20	697	RHDP	.89	.80
17208EX	LSD5061-11	.500"	Red	CA	10	2.1 @ 20	0.9 @ 20	697	RHDP	.89	.75
24715EX	LDD5121-20	.560"	Red	2-digit CA	18	2.1 @ 20	0.8 @ 20	697	RHDP	1.25	1.05
97199EX	LSD23265-10	2.24"	Red	CA	10	1.7 @ 20	21 @ 20	660	RHDP	5.75	5.19
105591EX	LSD40054-20 <sup>†</sup>	4.0"	Orange Red	CA	10	2.0 @ 20	18 @ 20	635	RHDP	9.49	8.29

<sup>†</sup> P/N 105591: 5 diodes per segment



#### **Dot Matrix Displays**

	Mfr. Cross	Jameco	Character	Illuminated	Buss	Pins/	Typical	Typical	Wavelength	Decimal	Pricir	ng
Part No.	Reference No.	Socket Number	Height	Color	Polarity*	Leads	Vf @ If (mA)	mcd @ mA	nm	Point #	1	10
173833EX	HP5082-7300	_	.290"	Red	4x7 Numeric	8	5.0 @ 170	.03 @ 20	660	RHDP	\$4.95	\$4.46
32951EX	TIL311	37161EX	.300"	Red	4x7 Hex character	11	5.0 @ 5	0.1 @ 5	660	_	16.95	14.35
118906EX	LTP747R	37161EX	.680"	Orange Red	5 x 7 AC/CR	12	1.7 @ 20	0.2 @ 20	655	_	1.95	1.79
183265EX	LMD5821ASR-20	_	2.3"	Red	5 x 8 CC/AR	14	1.7 @ 20	12 @ 20	660	_	4.95	4.45

<sup>\*</sup> CA-Common Anode/CC-Common Cathode/AC-Anode Column/CR-Cathode Row/AR-Anode Row # LHDP-Left Hand Decimal Point / RHDP-Right Hand Decimal Point



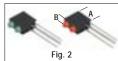


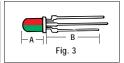












#### Standard-Output LEDs

\* Prepackaged: order in increments of 10

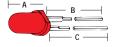
	Mfr. Cross		Emitting	Lens/Feature	LED	Diameter	Dimer	nsions	Lead	Typical	Typical	Wavelength	Pric	ing
Part No.	Ref. No.	Fig.	Color	Description	Size	inch/mm	A"	В"	Spacing	Vf @ If (mA)	mcd @ mA	nm	1	10
34657EX	LY2040	1	Yellow	Yellow diffused (XC209Y)	T1	.119/3	0.16	0.68	0.08	2.3 @ 20	15 @ 10	585	*	\$.13
114673EX	LH2043	1	Red	Water clear (BR209)	T1	.119/3	0.14	0.98	0.07	2.3 @ 20	12 @ 10	697	*	.19
94529EX	LH2040	1	Red	Red diffused (XC209RB)	T1	.119/3	0.18	1.04	0.07	2.3 @ 20	4.5 @ 10	697	*	.19
175679EX	LVG2041	1	Green	Green transparent	T1	.119/3	0.17	0.69	0.08	2.2 @ 20	129 @ 20	565	*	.15
34606EX	LSG2040	1	Green	Green diffused (XC209G)	T1	.119/3	0.13	1.05	0.08	2.2 @ 20	15 @ 10	560	*	.15
136274EX	LA44B/2G	2	Green	Green diffused (dual)	T1	.119/3	0.38	0.17	0.10	2.3 @ 20	15 @ 10	565	.49	.45
137411EX	LVB2040	1	Blue	Blue diffused	T1	.119/3	0.21	0.98	0.10	4.8 @ 20	10 @ 20	430	2.49	2.25
34825EX	LY3330	1	Yellow	Yellow diffused (XC556Y)	T1 3/4	.197/5	0.30	0.82	0.07	2.3 @ 20	12 @ 10	585	*	.19
11797EX	QLMP-D141	1	Red	Water clear (BR5704)	T1 3/4	.197/5	0.29	1.05	0.07	2.0 @ 20	350 @ 20	660	*	.19
94511EX	LH3330	1	Red	Red diffused (XC556RB)	T1 3/4	.197/5	0.31	0.81	0.08	2.3 @ 20	3 @ 10	697	*	.17
134332EX	LT18B3-81UR	1	Blue	Water clear	T1 3/4	.197/5	0.30	0.93	0.10	3.8 @ 20	350 @ 20	428	2.65	2.45
138691EX	LVB3330	1	Blue	Blue diffused	T1 3/4	.197/5	0.34	0.98	0.08	4.8 @ 20	10 @ 20	430	2.14	2.04
34761EX	LG3330	1	Green	Green diffused (XC556G)	T1 3/4	.197/5	0.31	0.79	0.09	2.3 @ 20	12 @ 10	565	*	.15
34711EX	LEG3362	1	Red/Green	White diffused bi-color/bi-state <sup>1</sup>	T1 3/4	.197/5	0.30	1.01	0.09	2.3 @ 20	7.5 & 8 @ 20	635/565	.33	.28
34673EX	LHG3392	3	Red/Green	White diff. bi-color/tri-state	T1 3/4	.197/5	0.30	1.02	0.03	2.3 @ 20	3 & 12 @ 10	697/565	.24	.22

<sup>1</sup> Reverse polarity to change color

#### LEDTECH LEDS

Typical DC forward current 20mA

Ledtech is a QS9000 and ISO-9000 Certified Company



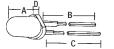


\* Prepackaged: order in increments of 10

		Emitting	Lens/Feature	LED	Dia.	Dime	nsions (lı	nches)	Lead	Typical	Typical	Wavelength	Pric	ing
Part No.	Product No.	Color	Description	Size	(inch/mm)	Α	В	С	Spacing	Vf @ If (mA)	mcd @ mA	nm	1	10
152768EX	LT0324-41	Green	Green clear	T1	.119/3	0.20	0.89	0.95	0.10	2.1 @ 20	20 @ 20	567	*	\$.12
152750EX	LT0344R-41	Orange Red	Red clear	T1	.119/3	0.20	0.89	0.95	0.10	2.1 @ 20	23.5 @ 10	635	*	.19
152805EX	LT1873-81-UR	Red Ultra Brt.	Water clear	T1 3/4	.197/5	0.34	0.89	0.95	0.10	1.9 @ 20	2000 @ 20	660	.29	.25

#### **Infrared Emitters**

- · Use for remote control and/or for fiber optics
- P/N 133946EX: Can be used w/ cameras, see pg 85 (peak emission wavelength: 940nm @ If 20mA)





· Chrome housing

· Mounting hole: .24"

• Mounting hole: .31"

	Mfr. Cross			Diameter	Dimensions (inches)					Prici	ing		
Part No.	Ref. No.	Description	Size	inch/mm	Α	В	С	D	Vf @ If	nm	mWatts	1	10
106526EX	TLN110	Infrared emitter diode (GaAs)	T13/4	0.200/5	0.34	0.78	0.84	0.04	1.2V @ 20mA	940	9	\$.39	\$.29
133946EX	SLI-0308CP	Infrared emitter diode (GaAs)	T1	0.12/3	0.22	0.98	1.00	0.03	1.7V @ 50mA	940	200	.62	.53

#### **LED Mounting Hardware**





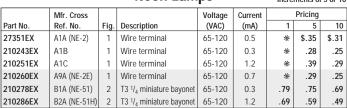


Prepackaged: order in

90013EX			230//EX	9552 IEX	increments of 10 or		
	Mfr. Cross			Mounting	Panel	Pric	ing
Part No.	Ref. No.	Description	Color	Hole Dia.	Thickness	10	100
95513EX	LMH100	T1 snap-in	Black	.185"	Up to .070"	\$.08	\$.07
23077EX	LMH200	T1¾ ring & clip	Black	.257"	Up to .125"	.15	.135
05521EV	LMH250	Poet span in	Black	306" v 202"	Unito 002"	20	17

#### **Neon Lamps**

\* Prepackaged: order in increments of 5 or 10





#### .56 141137EX L917RD **Neon Panel Mount Lamps**

L Α В

Dimensions (in.)

.39 .32

**Panel Mount LED Indicators** 

Output voltage: \*12V; †120V

Mfr. Cross

Ref. No.

L913RD

 Mounting hole diameter: 5/8" (16mm)

· Easy panel installation

141129EX: LED size: T1 141137EX: LED size: T13/4

 Panel/status/ instrument indicators · Vf @ If: 2V @ 20mA

· Color: red

Part No.

141129EX

· Solder terminals: 0.196" (5mm)



1

\$1.09

10

\$.81

Part No.	Product No.	Color 1	10
215714EX	R9-71B-05-12V-R*	Red \$1.79	\$1.59
215722EX	R9-71B-05-12V-Y*	Yellow 1.79	1.59
215731EX	R9-71B-05-12V-G*	Green 1.79	1.59
215802EX	R9-71N-05-120V-R <sup>†</sup>	Red 1.79	1.59
215811EX	R9-71N-05-120V-Y	Yellow 1.79	1.59
215829EX	R9-71N-05-120V-G <sup>†</sup>	Green 1.79	1.59









Input Setting



#### 20 x 4 Serial LCD Modules

- 20 characters x 4 line display with large digit mode
- · Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping and auto scroll feature
- Backlight supply current: 90mA typical
- Serial input at 1200–19,200bps (jumper selectable)
- Connect 16 modules using the same 2 wire interface
- Display size: 3.0"L x 1.0"W

Includes: Manual and software



150957FX

157323EX

150957EX: 20 x 4 Serial LCD Module

Power requirement: 5VDC @ 10mA typical (recommend P/N 164101EX, pg 23)

157323EX: 20 x 4 Serial LCD Module with keypad Interface

Power requirement: 5VDC @ 16mA typical (recommend P/N 164101EX, pg 23)

Part No.	Product No.	Description	Module Size (LxWxT)	1 10
150957EX	LCD2041	LCD module	3.9" x 2.4" x 0.7" <b>\$54.1</b>	9 \$52.69
157323EX	LK204-25	Module w/ interface	3.7" x 2.4" x 1.1" <b>72.</b> 9	5 71.15



#### 16 Characters x 2 Lines Serial LCD Module

- · Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping, and auto scroll feature
- Serial input at 1200–19,200bps (jumper selectable)
- Connect 16 modules using same 2 wire interface
- Backlight supply current: 40mA typical
- Display size: 2.5"L x 0.7"W
- Power requirement: 5VDC @ 9mA (recommend P/N 164101EX, pg 23)

Includes: Manual and software

Part No.	Product No.	Description	Module Size (LxWxT)	1	10
174166EX	LK162-12	16 x 2 w/ interface	3.2" x 1.5" x 0.8" <b>\$52</b>	.39	\$51.19

#### 0.6" High 3½-Digit LCD Digital Panel Meters

175951EX

- Automatic polarity indication
- Input impedance: >100MΩ
- Input Ranges: 200mV, 20V, 200V, 500V
- Bezel Accuracy: ±0.5%
- Dimensions: 2.7"L x 1.7"W
- Supply voltage: 8-12VDC (recommend 9V battery P/N 151095EX, pg 30)

Part No.	Description	1	10
108388EX	PM-428	\$12.95	\$11.95
175951EX	"1999" LCD DPM	12.95	11.95
146835EX	"1999" LCD DPM backlit display	19.95	17.99

#### 40 x 2 Parallel LCD Module with Backlight

- 40 x 2 character display
- Control chip HCD44780
- Character font: 5 x 8 dots
- · Column driver: KS0063B
- · Backlight: yellow-green
- Display size: 5.81"L x 0.45"W
- Supply voltage (logic): 5VDC @ 5mA
- Module size: 7.2"L x 1.4"W x 0.4" Thick

Part No.	Description	1	10
215159EX	40 x 2 parallel LCD	\$29.99	\$25.49



#### LCD Parallel Display

#### 16 Characters x 2 Lines

- 14-pin/terminals
- · Controller: KS0066U or equivalent
- Character font size: 0.125 W x 0.200 H
- Max. input voltage: 5.3VDC
- Display size: 2.5"L x 0.7"W 8-bit interface data bus
- Operating input voltage: 5VDC (recommend P/N 164101EX, pg 23)

Part No.	Product No.	Module Size (LxWxT)	1	10
171715EX	AC162A	3.4" x 1.2" x 0.5"	. \$19.95	\$17.95



#### 16 x 4 Parallel LCD Display

- 4-bit or 8-bit parallel interface 5 x 8 dot matrix Control LSI HD44780 or equivalent and column driver
- MSM5259 or equivalent Display size: 2.4"L x 1.0"H
- Module size: 3.4"L x 2.4"W x 0.3"T





Ideal for use w/ BASIC Stamps (pg 92), 80C52-BASIC controllers (pg 7) and PCs!

#### Scott Edwards Electronics, Inc. Serial LCD Modules

Includes instruction codes for character gen., cursor control, printing, etc. Examples for Stamps in PBASIC included

#### 16 characters x 2 lines Integrated Display

- Terminal style 1200–9600bps serial input with 16-byte input buffer
- · EEPROM storage of settings, six custom characters, and a splash screen
- Serial control of the standard LED backlight
- Low current draw; 5mA (backlight off) to 40mA
- (backlight on and bright)
- Power requirement: 4.8 5.5VDC @ 5mA (recommend P/N 164101EX, pg 23)

Part No.	Product No.	Description	Module Size (LxWxT)	1	10
150990EX	ILM-216L	LCD module	3.2" x 2.0" x 0.5"	\$48.95	\$44.09

#### 16 characters x 2 lines LCD Serial Backpack®

- · High-contrast supertwist display
- · Serial "backpack" accepts RS-232, or inverted CMOS, TTL at 2400 or 9600bps
- Power requirement: 4.8 5.5VDC @ 3mA (recommend P/N 164101EX, pg 23)
- Connector: 5-pin header (recommend P/N 163686EX, pg 39)

Part No.	Product No.	Description	Module Size (LxWxT)	1	10
133129FX	BPI-216N	LCD module	3 1" x 1 4" x 0 7"	\$59.95	\$53.99

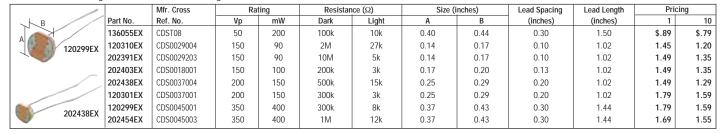
#### 40 characters x 4 lines LCD Serial Backpack®

- · High-contrast supertwist display with unique "big character": backlit mode - prints 1" numbers and letters automatically
- Serial input at 1200, 2400, 4800 or 9600bps
- Power requirement: 5VDC @ <10mA (recommend P/N 164101EX, pg 23)
- Module size: 7.5"L x 2.2"W x 0.9"T



Part No Product No. Description 136485EX BPP-440L 40 x 4 serial LCD display ...... \$169.95 \$152.95

CdS Photocells · Applications include: auto-focus lenses, exposure meters, contrast controls for TVs, dimmer or light switches, flame detectors, electronic toys, street lamp switches, optocouplers • Soldering: 230°C for 3 seconds • Cadmium Sulfide (CdS) • Operating temperature: -30°C to +70°C Generate variable signal based on detection of light levels





#### **Aluminum Radial-Lead Electrolytic Capacitors**

General purpose low voltage 85°C (A); HT Type 105°C (B) ±20%



Operating temperature	range	-40°C to +85°C (A); -40°C to +105°C (B)			
Leakage Current (20°C)	After 1 min.	0.03CV or 4µA, whichever is greater			
	After 2 min.	0.01CV or $3\mu$ A, whichever is greater			

#### \* Prepackaged: order in increments of 10

* Prepackaged: order in increments of 10								
	Mfr. Cross	Op.	Value	Voltage	Size (mm)*	Pric	ing	
Part No.	Reference No. †	Temp	(μF)	(V)	DxH	1	10	
94160EX	5R1/50	Α	1	50	4 x 5	*	\$.12	
29831EX	R1/50	Α	1	50	5 x 11	*	.057	
93729EX	R2.2/50	Α	2.2	50	5 x 11	*	.038	
135183EX	R3.3/50	Α	3.3	50	5 x 11	*	.05	
31000EX	R4.7/50	Α	4.7	50	5 x 11	*	.038	
94211EX	5R10/25	Α	10	25	4 x 5	*	.13	
94220EX	5R10/35	Α	10	35	5 x 5	*	.09	
29891EX	R10/50	Α	10	50	5 x 10	*	.06	
198942EX	R22J/35	Α	22	35	5 x 11	*	.035	
198926EX	R33J/25	Α	33	25	5 x 11	*	.045	
93745EX	R33/50	Α	33	50	6 x 11	*	.055	
198951EX	R47J/35	Α	47	35	5 x 10	*	.05	
94289EX	5R100/16	Α	100	16	6 x 5	*	.15	
198969EX	R100J/35	Α	100	35	6.3 x 11	*	.07	
31181EX	R470/25	Α	470	25	10 x 16	*	.12	
30015EX	R1000/16	Α	1000	16	13 x 21	*	.16	
93833EX	R1000/25	Α	1000	25	12 x 20	*	.25	
158297EX	R1000B25	В	1000	25	10 x 17	.35	.29	
158377EX	R1000B35	В	1000	35	13 x 21	.49	.45	
93841EX	R1000/50	Α	1000	50	16 x 26	.52	.46	
199110EX	R1000J/100	Α	1000	100	18 x 40	3.19	2.49	
30533EX	R2200/25	Α	2200	25	16 x 36	.55	.49	
198985EX	R2200J/35	Α	2200	35	16 x 25	1.39	1.25	
158431EX	R2200B50	В	2200	50	16 x 31	.99	.89	
93850EX	R4700/25	Α	4700	25	18 x 35	.99	.85	
199005EX	R4700J/35	Α	4700	35	18 x 35.5	1.35	1.25	
163301EX	R4700/50	Α	4700	50	22 x 42	1.99	1.79	
31510EX	R6800/16	Α	6800	16	18 x 36	.99	.78	

<sup>\*</sup>Capacitor dimensions and lead spacing may vary Elna: RC2/RE2; IC: RAR/RSS; Marcon: SEM/SSM; Nichicon: LB/VX/USA/SR/SA; Rubycon: MS7/TWSS; Sprague: 501D/513D; UCC: SME/SRE/SRA/SRG; Panasonic: KA/KS/SU

# Aluminum Axial-Lead Electrolytic Capacitors General purpose low voltage 85°C



Operating temperature range	-40°C to +85°C
Leakage Current (After 2 minutes 20°C)	0.02CV or $2\mu$ A, whichever is greater

* Prepackaged: order in increments of 10								
	Mfr. Cross Value Voltage Size (mm)∗ Pricing							
Part No.	Ref. No. †	(μF)	(V)	DxH	1	10		
10866EX	A1/50	1	50	5 x 13	*	\$.15		
93569EX	A2.2/50	2.2	50	6 x 13	*	.11		
10882EX	A10/50	10	50	6 x 12	*	.15		
199267EX	A22J/25	22	25	6 x 12	*	.20		
199355EX	A47J/35	47	35	6.3 x 16	*	.20		
93551EX	A100/35	100	35	8 x 16	*	.21		
93649EX	A1000/35	1000	35	13 x 26	.85	.75		
199478EX	A2200J/50	2200	50	18 x 42	2.29	1.93		
93681EX	A10000/16	10000	16	22 x 51	2.25	2.05		

<sup>\*</sup> Capacitor dimensions may vary

#### Ceramic Disc Capacitors (±20%)

25 and 50 Volt, Z5U Temperature Coefficient

20 dia 00 voit, 200 romporatare occimionit						
Operating temperature range	+10°C to +85°C					
Cap. change over temp. range	+22% to -56%					
Dielectric withstanding voltage	2.5 times rated volt. for not < 1 sec.					

· Prepackaged: order in increments of 10 or 100

Part No.	Mfr. Cross Ref. No.	Capacitance	Voltage (V)	Dia. (mm)*	10	100
15333EX	DC10	10pF	50	5	\$.07	\$.05
15405EX	DC22	22pF	50	6	.07	.05
15190EX	DC.001	.001µF	50	6	.06	.05
97341EX	DC.0022/1K20	.0022µF	1000	11	.22	.18
15229EX	DC.01	.01µF	50	6	.06	.04
15253EX	DC.047	.047µF	50	8	.084	.069
151116EX	DC.1/25	.1μF	25	6	.14	.13
15270EX	DC.1	.1µF	50	8	.15	.13

<sup>\*</sup>Capacitor dimensions and lead spacing may vary

#### Monolithic Ceramic Capacitors (±20%) (Z5U Series)

Applications:

· Data processing

Communications engineering

Operating temperature range: -10°C to +85°C

\* Prepackaged: order in increments of 10

	Mfr. Cross			Size (mm)*	Prici	ng
Part No.	Ref. No.	Capacitance	Voltage (V)	WxTxH	1	10
81541EX	MD10	10pF	50	3.5 x 2.0 x 3.0	*	\$.10
81533EX	MD22	22pF	50	4.0 x 2.0 x 4.0	*	.095
81525EX	MD100	100pF	50	3.5 x 2.0 x 3.0	*	.09
25507EX	MD.01	.01µF	50	3.5 x 2.0 x 3.0	*	.09
57621EX	MD.047	.047µF	50	2.5 x 2.5 x 3.0	*	.08
25523EX	MD.1	.1μF	50	6.0 x 2.0 x 4.0	*	.07
25558EX	MD.47	.47µF	50	4.5 x 2.5 x 4.5	*	.25
81509EX	MD1	1μF	50	6.0 x 3.0 x 7.0	.48	.43
25540EX	MD.22	.22µF	50V	6.0 x 2.0 x 4.5	*	.17

<sup>\*</sup>Capacitor dimensions and lead spacing may vary

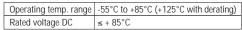
# Dipped Tantalum Capacitors (±10%) Resin Dipped Solid Tantalum Capacitors

• Flame retardant coating • Ex

· Exceptional temperature stability

Low leakage current • Moisture-resistant

Designed for entertainment and commercial equipment



\* Prepackaged: order in increments of 10

**−** D

Part No.	Mfr. Cross Ref. No. †	Cap.	Volt.(V)	Size (mm) D x H*	1	10
33486EX	TM.1	.1µF	35	4.5 x 7.0	*	\$.25
33507EX	TM.22	.22µF	35	4.5 x 7.0	*	.25
33523EX	TM.33	.33µF	35	4.5 x 7.0	*	.25
154860EX	TM1/25	1μF	25	3.0 x 6.0	.32	.29
33662EX	TM1	1μF	35	4.5 x 7.0	.32	.29
94001EX	TM2.2/16	2.2µF	16	4.5 x 7.0	*	.19
33734EX	TM2.2	2.2µF	35	4.5 x 7.5	.39	.35
94035EX	TM4.7/16	4.7µF	16	4.5 x 7.5	.47	.38
94043EX	TM4.7/25	4.7µF	25	5.0 x 8.5	.49	.44
33806EX	TM4.7	4.7µF	35	5.5 x 9.0	.45	.42
94060EX	TM10/16	10μF	16	5.0 x 9.0	.45	.39
94078EX	TM10/25	10μF	25	5.5 x 9.0	.59	.50
33689EX	TM10	10μF	35	6.0 x 10.0	.89	.79
94094EX	TM22/16	22µF	16	6.0 x 10.0	.69	.59
94107EX	TM22/25	22µF	25	7.0 x 10.5	1.79	1.59
33785EX	TM33	33µF	25	8.0 x 13.0	2.31	2.09
94123EX	TM47/16	47µF	16	8.0 x 13.0	1.69	1.55
33822EX	TM47	47µF	25	9.0 x 14.5	3.39	3.05
33700EX	TM100	100µF	6.3	7.0 x 10.5	1.19	1.09

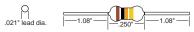
<sup>\*</sup>Capacitor dimensions and lead spacing may vary

<sup>†</sup>Dipped Tantalum Capacitor Cross References: Panasonic: EF Series; AVX: Tap Series; Sprague: 196D and 199D; Kemet: T350/T360; Mepco: 49GS; NEC: DN; Nichicon: 599; NIC: NDTM; Hitachi: T5D-3; Matsuo: 202





<sup>†</sup> AXIAL CAPACITOR CROSS REFERENCES: Elna: RE2; IC: RAR: Marcon: SEM; Nichicon: LB/VX; Rubycon: TWSS; Sprague: 501D/513D; UCC: SME; Panasonic: SU



#### Assortment Pricing: 1/4-Watt Carbon Film Resistor (±5%) Assortments may not be combined for quantity price breaks

#### Single Resistor Value Pricing: 1/4-Watt Carbon Film Resistors (±5%)

To order: Use 5-digit part number adjacent to ohms in chart below

values may not be co	ilibilieu ioi qu	aritity price bi	9	9¢/bag
Pricing (Sold in bags of 100 pieces)			100	piece bags
Specify Part No. & Resistor Value	1 Bag	10 Bags	50 Bags	100 Bags
(see Standard Resistor Value Chart below)	\$.99/bag	\$.57/bag	\$.49/bag	\$.46/bag

	Part No.	Description (Including bulk pack values)	1	10	25
	10719EX	5 ea. of 70 values (every other value from 10 ohm-5.6 M $\Omega$ ) (350 pcs.)	\$9.95	\$8.95	\$7.95
_	103165EX	10 ea. of 24 values marked (●) and 50 ea. of 6 values marked (★) (540 pcs.)	12.95	11.49	9.95
	10663EX	100 ea. of 27 values marked (▲) (2,700 pcs.)	24.95	22.49	20.49
5	10655EX	100 ea. of 160 values (all resistor values in the chart below) (16,000 pcs.)	119.95	107.95	96.95
ıŢ	81832EX	1/4 watt resistor component cabinet kit – 30 values (540 pcs.) see page 37	27.95	24.95	22.49

For more resistor values you can refer to our website @ www.Jameco.com

#### Standard Resistor Values Chart

Part No.	Ohms														
29882EX ▲●	10	30162EX ▲●	150	30963EX •	390	29663EX ▲x	1.0k	30314EX ▲●	2.2k	31237EX ▲●	5.1k	30453EX ▲●	22k	30525EX	220k
31106EX ▲●	47	30470EX ▲×	220	31165EX ▲●	470	29735EX •	1.2k	30390EX ▲●	2.7k	31270EX ▲●	5.6k	30841EX ▲●	33k	31202EX ▲●	470k
29946EX ▲x	100	30605EX ▲●	270	31376EX	560	29760EX ▲●	1.5k	30672EX ▲●	3.3k	29911EX ▲x	10k	31149EX ▲●	47k	29698EX ▲●	1.0M
30082EX	120	30867EX ▲●	330	31499EX ▲●	680	30277EX ▲●	2.0k	31026EX ▲×	4.7k	30146EX ▲●	15k	29997EX ▲×	100k	29938EX ▲●	10M

#### 1/8-Watt Carbon Film Resistor (±5%) Assortments

Any 1/8 or 1/2-Watt Resistor value (below) can be special ordered - 1000 pc minimum • 1/8-W - \$12.95/k (bulk) • 1/2-W - \$15.95/k (bulk)

1/8 & 1/2-Watt Resistor Assortments Value Chart (Ohms)									
10 X	150 X	330 X	680 X	2.0k X	3.3k X	5.6k X	15k X	33k <b>X</b>	470k X
47 X	220 #	390 X	1.0k #	2.2k X	4.7k #	6.8k X	22k <b>X</b>	47k <b>X</b>	1.0M X
100 #	270 X	470 X	1.5k X	2.7k X	5.1k X	10k #	27k <b>X</b>	100k #	10M X

(X), (#) symbols indicate Resistor values included in Assortments below.

	Cross	Values		Pric	cing
Part No.	Ref. No.	included	Description (see chart above)	1	10
108302EX	ASST1830	<b>X</b> #	10 each of 24 values marked by <b>x</b> and 50 each of 6 values marked above by <b>#</b> (540 pcs.)	\$12.95	\$11.49
108329EX	CAB182R	_	1/8-watt resistor component cabinet kit – 30 values (540 pcs.) see page 37	24.95	22.49

#### Single-In-Line "SIP" Resistor Networks 8 and 10-Pin Bussed (125mW/Resistor) ±2%

Features (8BRN/10BRN):

8-pin package (7 resistors) = 8BRN 10-pin package (9 resistors) = 10BRN

 Rated power per resistor at 70°C: 125mW/ resistor

Op. temp. range: -55°C to +125°C

Insulation resistance:  $10,000M\Omega$  min. at 100V

Solderability: per MIL-R-83401

Low profile 5mm (.200" body height)

Low profile is compatible with DIPs Cermet thick film construction

0.25 ± 0.1 1 max. Dimensions: mm						
				Part No.	Pins	Ohms
				97826EX	8	10k
Pricing per each			97851EX	10	330	
1				97869EX	10	470
	10	100	1000	97877EX	10	1.0k
\$.25	\$.19	\$.15	\$.12	97893EX	10	2.2k
Pricing for P/N 97826EX			6EX	24660EX	10	4.7k
\$.24	\$.18	\$.14	\$.11	24643EX	10	10k
ψ.24	ψ. 10	ψ.14	Ψ.11	98087EX	10	47k
				98095EX	10	100k

#### **Dual-In-Line "DIP" Resistor Networks**

16-Pin Isolated (140mW/Resistor) ±2%



Maximum operating voltage: 100V

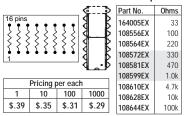
Insulation resistance:  $10,000M\Omega$  min.

Lead solderability/solvent resistance: meets requirements of MIL-R-83401

Power rating at 70°C: 2.25 watts

Compatible with automatic insertion equipment

Copper leads for excellent • Tolerance: ±2% heat dissipation



#### 1/2-Watt Carbon Film Resistor (±5%) Assortments

	Cross	Values		Pri	cing
Part No.	Ref. No.	Included	Description (see chart above)	1	10
107879EX	CAB12R	_	1/2-watt resistor component cabinet kit – 30 values (540 pcs.) see page 37	\$29.95	\$26.95

430

510 5.6k 62k 820k

560 6.2k 68k 910k

680 7 5k 82k 1 6M

750

820 9.1k

1.1k 12k

1.2k

1.5k

2.2k 24k 300k

16k 200k

43k

33 470 4.7k 56k

56 62 3.0 3.3

68

150 1.6k 18k 220k 3.9M

160 1.8k 20k 240k 4.3M

200

360

2.2

2.4

4.3

4.7

5.1 5.6 85 91 1.0k 11k 120k 2.4M

6.8 7.5 120 130 1.3k 15k 180k 3.3M

10 16 180 2.0k 22k 270k 4.7M

18 220 2.4k 27k 360k 5.6M

20 240 2.7k 30k 390k 6.8M

22 270 3.0k 33k 430k 7.5M

24 300 3.3k 36k 470k 8.2M

#### SMD Resistor Assortment (±5%)\* 144 Values, 50 pcs. each; 7,200 Pieces Total

Resistance Value Chart:



 Surface mount 0805 resistors, 144 values ranging from  $1.2\Omega$  to  $10M\Omega$  (50 pieces of each value)

· Thickness: 0.5mm

• Size: 2.0mm x 1.25mm

 Max. overload voltage: 200V

· Op. temp. -50°C to 120°C

Includes: Case w/ labels

172806EX 16-500 * \$79.95 \$71.95 \$	art No.	25
172000LX 10 300	72806EX	\$64.79

Surface mount

#### SMD Plastic Fliptop Case\*

#### Store 128 Different Surface Mount Components

- · 8 rows x 16 column grid
- · Fliptop openings on each bin · Padded cover locks bins closed
- Color: gray

620k

1.0N

1.8M

2.7M 150k

3.0M

3.6M

5.1M

91k 8.2k

> 100k 2.0M

110 2.2M Size: 11.0"L x 8.3"W x1.7" Thick

Includes: Labels for each bin Part No. Description

164267EX SMD fliptop case

# Surface mount

5700 Series

\$49.95 \$44.99

#### **High Current Toroid Inductors**

- Low radiation
- · Low core loss High current
- capacity

Size: A = 22.22mm max.; B = 11.09mm max.;  $C = 15.0 \pm 1.0 \text{mm}$ ;  $D = 1.2 \pm 0.5 \text{mm}$ 

Part No. L (µH) IDC max. (A) L min. @ IDC 208258EX 5 ...... **\$3.99 \$3.05** 208266EX 25 12 ...... 3.99 3.05 208291EX 15 250 ...... 4.32 3.28

#### 2-Watt Linear Taper (±10%)

95417EX

1 04"

· 2W @ 70°C ambient · Temp. range: -55° to +120°C

Conductive plastic element

Military No.: RV4N-AYSD\_

Non-rotational key

Shaft: dia.: 0.25"; length: 0.875 Mounting hole: 0.375'

Max. panel thickness: 0.25

Includes: Mounting hardware

Part No.	Product No.	Ohms	1	10
183610EX	53C3-500	500	\$7.95	\$6.95
13936EX	53C3-1K	1k	7.95	6.95
13995EX	53C3-5K	5k	7.95	6.95
13952EX	53C3-10K	10k	7.95	6.95
95417EX	53C3-50K	50k	7.95	6.95
13979EX	53C3-100K	100K	7.95	6.95

#### Drop us a line at:

AtHome@Jameco.com

We're always looking for suggestions and feedback about the products we offer.



#### 5-W Linear Taper Wire Wound (±20%)

 Temperature range: -10°C to 70°C Shaft dia.: 0.23" (6mm)

140513EX



P/N 140521EX (0.25") Non-rotational key

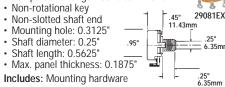
length: 0.67", except

· Max. panel thickness: 0.1"

· Mounting hole: 0.32" Includes: Mounting hardware Part No. Mfr. Cross Ref. No. Ohms 1 140513EX PW5B100 100 ...... \$2.79 \$2.35 140521EX PW5B500 500 ..... **2.79 2.35** 

#### 1/2-Watt Linear **Taper (±10%)**

Temperature range: -55°C to +125°C



•		0.3	JIIIII
Mfr. Cross Ref. No.	Ohms	1	10
P1K	1k	\$.99	\$.79
P10K	10k	99	.79
P100K	100k	99	.79
	P1K P10K	P1K 1k P10K 10k	Mfr. Cross Ref. No.         Ohms         1           P1K         1k         \$.99           P10K         10k         .99

#### 1/4-Watt 24mm Linear Taper with Switch (±20%)

- Maximum voltage: 500V
- 263759EX Switch circuit: ŠPST
- Switch rating: 125VAC, 1A
- Rotational angle: 300° (±5°)
  Shaft length: 0.335"
  Terminal type: solder lugs

Part No.	Product No.	Ohms	1	10
263759EX	RV24A01-10-15R1-B52	500	\$1.62	\$1.36
263767EX	RV24A01-10-15R1-B13	1k	1.62	1.36
263783EX	RV24A01-10-15R1-B53	5k	1.62	1.36
263791EX	RV24A01-10-15R1-B14	10k	1.62	1.36
263812EX	RV24A01-10-15R1-B54	50k	1.62	1.36
263821EX	RV24A01-10-15R1-B15	100k	1.62	1.36
263855EX	RV24A01-10-15R1-B16	1M	1.62	1.36

#### 1/4-Watt 24mm Audio **Taper (±20%)**

- Maximum voltage: 250V 255396EX
- Terminal type: solder lugs
- Insulation resistance: >100MΩ @500VDC

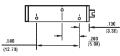
<ul> <li>Rotation</li> </ul>	nal angle: 300° (±5°)	<ul> <li>Shaft ler</li> </ul>	ngth: 0	0.335"
Part No.	Product No.	Ohms	1	10
255396EX	RV24A-10-15R1-A13	1k \$	\$1.18	\$.90
255417EX	RV24A-10-15R1-A53	5k	1.18	.90
255425EX	RV24A-10-15R1-A14	10k	1.18	.90
255433EX	RV24A-10-15R1-A54	50k	1.18	.90
255441EX	RV24A-10-15R1-A15	100k	1.18	.90
255468EX	RV24A-10-15R1-A16	1M	1.18	.90

#### 1/4-Watt 24mm Audio Taper with Switch (±20%)

		<b>\</b> ——
•	Voltage rating: 250V	263601EX
•	Switch circuit: SPST	

<ul> <li>Switch r</li> </ul>	ating: 125VAC, 1A		
<ul> <li>Rotation</li> </ul>	nal angle: 300° (±5°)	· Shaft length:	0.590"
Part No.		Ohms 1	10
263601EX	RV24A01-10-15R1-A13	1k <b>\$1.62</b>	\$1.36
263610EX	RV24A01-10-15R1-A53	5k <b>1.62</b>	1.36
263636EX	RV24A01-10-15R1-A14	10k <b>1.62</b>	1.36
263644EX	RV24A01-10-15R1-A54	50k 1.62	1.36
263652EX	RV24A01-10-15R1-A15	100k <b>1.62</b>	1.36
263679EX	RV24A01-10-15R1-A16	1M 1.62	1.36

#### 3/4-Watt, 3/4" Rectangular 15-Turn Linear Cermet (±10%)





41911EX

- · Side adjusting
- PC pins: .100" grid (2.54mm)
- Sealed to guard against contaminants
- Temp. range:-55°C to +125°C

Part No.	Mfr. Cross Ref. No.	Ohms	1	10
41937EX	43P500	500	\$1.05	\$.99
41890EX	43P5K	5k	1.05	.99
41822EX	43P10K	10k	1.05	.99
41911EX	43P50K	50k	1.05	.99

#### 1/2-Watt, 3/8" Square, Single-Turn Cermet (±10%)

- 1/2 watt linear taper @ 70°C Cross Reference Chart • PC pins: .100" grid (2.54mm)
- Sealed to guard
- against contaminants
- Pin Spacing: 0.1'
- Top adjusting
- Temp. range: -55°C to +125°C 42964FX

Equivale	ent to:
Allen Bradley	E2B
Beckman	72PR
Bourns	3386P
Mepcopal	8038
Murata	3104P
Spectrol	63P
VRN	780-12P
Weston	840P

Part No.	Mfr. Cross Ref. No.	Ohms	1	10
43123EX	63P500	500	\$.85	\$.79
42964EX	63P1K	1k	85	.79
43043EX	63P2K	2k	85	.79
43078EX	63P5K	5k	85	.79
43001EX	63P10K	10k	85	.79
43051EX	63P20K	20k	85	.76
43107EX	63P50K	50k	85	.76
43027EX	63P100K	100k	85	.79
43060EX	63P300K †	300k	85	.76
63212EX	63P500K	500k	85	.76
42981EX	63P1MEG	1M	85	.79
105216EX	63P2MEG <sup>†</sup>	2M	85	.76

† Pin spacing 0.2"

#### BOURNS

#### Multi-Turn (±10%)

Series

3299

Series

- · Resistance tolerance: ±10%
- Insulation resistance: (500VDC)  $1000M\Omega$  min.

#### Series 3299:

- 25-turn; cermet type
- Absolute minimum resistance:  $2\Omega$  or 1% max.
- Load life: 200 cycles, 0.5W Series 3540:



• Absolute minimum resistance:  $1\Omega$  or 0.1% max

· Load life: 1000 hours, 2W

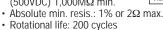
Part No	Product No.	Ohms	1	10
183564EX	3299W-1-103	10k	\$2.39	\$2.25
183548EX	3540S-1-502	5k	12.79	12.35
183521EX	3540S-1-103	10k	12.79	12.35

#### 1/2-Watt Trimming Potentiometers (±10%)

191644EX

· Linear taper · Contact resistance variation: 1% or  $3\Omega$  max.

· Insulation resistance: (500VDC) 1,000M $\Omega$  min.



Terminals: solderable pins

Top adjustment: 240° nominal

· Wiper positioning: 50% nominal Mfr. Cross Ref. No. Part No.

3362P Series Ohms 1 10 \$.69 \$.62

Cross Reference Chart

Equivalent to:

PCZZZ

3362P

CT-6P

PVC6

3362P Series

Bourns

Copal

Murata

191644EX 3362P-1-200 182828EX 3362P-1-502 .62



#### 150 More @ Jameco.com

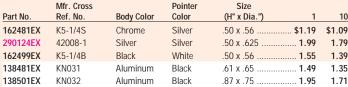
Jameco carries a selection of Multi-Turn and Trimmer Potentiometers.

#### Aluminum Instrumentation Knobs

(1/8" and 1/4" Shaft Diameters)

Includes: Set screw for secure attachment

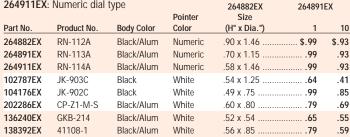
290124: Coarse surface for sensitive control; 1/8" shaft diameter





Includes: Set screw for secure attachment 264882EX/264891EX/

264911EX: Numeric dial type









138501EX









102787EX



264911EX

104176EX

202286EX









#### **Incandescent Lamps**

\* Prepackaged: order in increments of 5

Mfr. Cross	Volts			Current			Pric	ing
Part No.	Ref. No.	Fig.	Description	(VDC)	(A)	MSCP	1	5
209390EX	14	1	G3 1/2 miniature screw	2.47	.30	.50	\$.55	\$.52
209437EX	37EX 47 2 T3 1/4 miniature bayonet		6.3	.15	.50	*	.22	
209883EX 1821 3 T3 1/4 screw		28.0	.17	3.4	.99	.89		
141073EX 2182 4 T1 <sup>3</sup> / <sub>4</sub> wire terminal		14.0	.08	.30 \$.	.49	.44		
<b>141065EX</b> 2200 4 T1 <sup>3</sup> / <sub>4</sub> wire terminal		5.0	.06	.05	.59	.54		
141057EX	11057EX 6833 5 T 3/4 wire terminal		5.0	.06	.05	1.29	1.15	
209998EX	7219	6	T1 wire terminal	12.0	.06	.15	*	.29
210008EX	7328	7	T1 <sup>3</sup> / <sub>4</sub> bi-pin	6.0	.20	يي 60.	9 .89	.79
210024EX	7341	8	T1 3/4 midget flange	28.0	.065	.65.\$.6		.69
141006EX 7361 7 T1 <sup>3</sup> / <sub>4</sub> bi-pin		T1 <sup>3</sup> / <sub>4</sub> bi-pin	5.0	.06	.05.\$4	<del>.29</del> .99	.89	
210032EX	0032EX 7382 7 T1 <sup>3</sup> / <sub>4</sub> bi-pin		14.0	.08	.30	.49	.39	
210075EX	7715	9	T1 bi-pin	5.0	.115	.15	1.19	.99
210091EX	120MB	10	T2 miniature bayonet	120	.025	1200	.69	.65



#### 94 more incandescent lamps available @ www.Jameco.com





While you're there be sure to check out our selection of Neon Lamps.

#### **Buzzers and Sonic Transducers**

Magnetic Transducers • Applied voltage: 1/2 duty, square wave

Part		Operating Volt.	Voltage	Frequency	Sound		Pric	ing
Number	Fig.	(Vp-p/mA)	Range (Vp-p)	(Hz)	(dB)	Dimensions	1	10
138721EX	1	1.5/10	1 – 2	2048	80	.32"H x .46"Dia.	\$1.49	\$1.35
207917EX	2	1.5/30	1 – 2	2048	75	.22"H x .47"Dia.	1.45	1.16
207925EX	3	1.5/70	1 – 2	2048	80	.50"L x .50"W x .30"H	.56	.51
207941EX	4	1.5/80	1 – 2	2731	80	.28"H x .38"Dia.	.99 .68	.62
207968EX	5	1.5/80	1 – 2	2731	80	.22"H x .35"Dia.	.65	.59
207909EX	2	3.6/40	1 – 4	1980	70	.22"H x .47"Dia.	.99	.84
138739EX	1	5/40	3 – 8	2400	85	.35"H x .46"Dia.	1.49	1.29
106500EX	1	5/40	3 – 8	2400	85	.40"H x .48"Dia.	1.49	1.29
207933EX	4	5/100	4 – 8	3100	85	.28"H x .38"Dia.	.66	.60
207950EX	5	5/100	4 – 8	3100	85	.22"H x .35"Dia.	.81	.74

#### Magnetic Buzzers

1	Part		Operating Volt.	Voltage	Frequency	Sound		Pric	ing	
ı	Number	Fig.	(VDC/mA)	Range (VDC)	(Hz)	(dB)	Dimensions	. 1		
76064EX		6	5/30	4 – 7	2300	85	.35"H x .46"Dia.	\$2.99	\$2.69	

#### Piezo Buzzers

206295EX	6	12/6	3 – 20	2900	95	.63"H x .92"Dia.	\$2.49	\$2.25
196357EX	6	12/5.8	3 – 16	4000	86	.30"H x .54"Dia.	2.69	2.45
138712EX	6	12/7	3 – 16	4000	80	.30"H x .54"Dia.	2.49	2.25
207888EX	7**	12/120	9 – 15	1500 - 3100	105	3.4"L x 2.2"W x 1.3"H	5.78	5.25
207992EX	8	12/250	6 – 16	3500	105	2.3"L x 1.8"W x 1.6"H	6.95	6.29
32601EX	9	24/15	1 – 28	2900	95	1.4"H x 1.7"Dia.	4.95	4.45
123537EX	9*	24/20	4 – 28	2900	80	1.4"H x 1.7"Dia.	4.19	3.79
76021EX	10	24/20	1.5 – 28	3200	95	1.0"H x 1.1"Dia.	4.99	4.49

<sup>\*</sup> Dual tone \*\*Siren

#### More available on our website! Visit us at www.Jameco.com

#### SALE



# **110VAC Piezo Buzzer**• Sound pressure level: 90dB

Output tone: pulse
6" lead wires

Operating range: 60-150VAC

• Current drain: 20mA • Fits 1.125" diameter opening

• Size: 1.3"H x 1.7"Dia. Includes: Mounting nut

 Part No.
 Product No.
 1
 10

 184743EX
 FM-110A-903AL
 \$3.19
 \$2.99

#### **Omnidirectional Electret Condenser Microphone Cartridges**

 For use with tape recorders, intercoms, hearing aids, telephone and answering devices, sonic controlled toys and sensors

Used for recording, testing, and monitoring

Modems for computers



116505EX





36573EX



				Frequency	Max. Op.	Stand Op.	Current	Sensitivity	S/N		Size	Prici	ng
Part No.	Туре	Sensitivity	Impedance	(Hz)	Volt. (VDC)	Volt. (VDC)	(Max.)	Reduction	Ratio	Terminals	(H x Dia.)	1	10
116505EX	WM-54PC	-44 ±2dB	>2.2kΩ	20-16,000	10V	2.5V	0.6mA	-3dB @ 2V	>60dB	PC pin leads	.20" x .38"	\$.69	\$.62
160979EX	WM-64PKT	-44 ±3dB	>2.2kΩ	20-16,000	10V	2.0V	0.5mA	-3dB @ 1.5V	>58dB	PC pin leads	.10" x .24"	.72	.65
136573EX	WM-60PC	-54 ±2dB	>2.2kΩ	20-12,000	12V	4.5V	0.5mA	-3dB @ 3V	>40dB	PC pin leads	.30" x .38"	.53	.48

#### **Square Ferrite Speaker**

- Pre-tinned speaker lugsFreq. range: 300-14000Hz
- Large magnet
   Anodized met
- Anodized metal surfaces
- Paper diaphragm
- Braided copper voice coil leads

Part	Mfr. Cross	Dimensions	Input (W)		1 ,		Input (W)		Impedance	Output	Magnet Size	Pricing	
Number	Ref. No.	(Dia." x D")	Nom	Max	(Ω)	SPL (dB)	(Dia." x H")	1	10				
99995EX	FEB204	2.6 x 0.9	3.0	4.0	4	95	1.8 x 0.5	\$2.49	\$2.25				





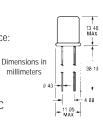
Same Day Shipping 99% In Stock



#### Crystals

- · Frequency calibration tolerance: ± 50ppm @ 25°C
- Operating temp.: -10°C to +60°C
- · Drive level: 4.0 mW max.
- · Frequency stability tolerance: ±50 ppm from -10°C to +60°C





#### HC49/U (HC18/U) Case

Part No.	Mfr. Cross Ref. No.	Frequency (MHz)	Impedance	Microprocessor	1	10
101274EX	CY2.457	2.4576	32pF	CDP1702/1802C/1804/1804C	\$.99	\$.89
14592EX	CY4	4.0	20pF	MCS-40/MC6802,8,9/CDP1802	.59	.54
120061EX	CY11.05	11.0592	Series	General purpose	.89	.79
14517EX	CY20	20.0	Series	MCS-80/8080A/8224	.79	.69

#### Low Profile Crystals

- Frequency range: 3.5 to 70.0MHz
- Operating temp.: -10°C to +60°C
- Drive level: 0.5mW (fundamental frequency)
- Aging: ±5ppm/year maximum

Frequency stability tolerance: ±50ppm

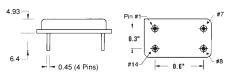
.43 - 13 max.
HC49/S Case

#### HC49/S Case (Low Profile)

Part	Mfr. Cross	Frequency		Max.		Pri	cing
Number	Reference No.	(MHz)	Imped.	Resist.	Microprocessor	1	10
137832EX	CY4LP	4.000	17pF	120Ω	MCS-40/MC6802, 8, 9/CDP1802	\$.99	\$.89
137859EX	CY8LP	8.000	Series	60Ω	IM6100A/MC68B09	.75	.67

#### TTL Crystal Oscillators

- OSC series oscillators fit into a 14-pin DIP socket PN 133006EX, below
- Input voltage: +5VDC ±0.5VDC
- Operating temperature: 0°C to 70°C
- Frequency stability ±100ppm



Part	Mfr. Cross	Frequency	Max Input	Rise Fall	Input	Pric	ing
Number	Reference No.	(MHz)	Current	Time	Current	1	10
27861EX	OSC1	1.0	7mA	15ns	45mA	\$2.75	\$2.45
27967EX	OSC4	4.0	7mA	10ns	50mA	1.99	1.79
27991EX	OSC8	8.0	15mA	15ns	30mA	1.99	1.79
27887EX	OSC10	10.0	15mA	10ns	20mA	1.99	1.79
27895EX	OSC12	12.0	15mA	10ns	50mA	1.99	1.79
27932EX	OSC20	20.0	17mA	10ns	20mA	1.79	1.59
76857EX	OSC100	100.0	25mA	3ns	90mA	2.49	2.25

#### 14-Pin Crystal Oscillator Socket

- · Can be PCB mounted without the modifications that would be needed with DIP-IC sockets
- · Low profile solder tail; machine tooled on 4 pins
- Good for prototyping and PCB mounting

Part No.	 Descri	-	 1	10
133006EX	Oscilla	ator socket	 \$.55	\$.46



27967EX

#### 33 More @ www.Jameco.com



Find a larger selection of Crystals and Oscillators on our website.

Pin # Function

N/C

GND

Pin # Function

Output

+5VDC

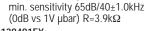
#### <u>Sensors</u>

#### **Ultrasonic Sensor Sets**

- · Use for motion or distance sensing
- Frequency: 40kHz ±1.0kHz
- Aluminum case

#### Transmit/Receive Set

- Capacitance: 2000pF ±30%
- Case size: 0.47"H x 0.62" Dia.
- · Transmitter: bandwidth 4.0kHz/112dB, sound pressure level 119dB/40±1.0kHz
- · Lead length/spacing: 0.39"
- Receiver: bandwidth 3.5kHz @ -71dB.





136653EX

139491EX: 139491EX

#### Transmit/Receive Set

- Capacitance: 2000pF ±20%
- Lead length/spacing: 0.28"
- Transmitter: bandwidth 5.0kHz/100dB, sound pressure level 112dB/40 ±1.0kHz
- Receiver: bandwidth 5.0kHz @ -75dB, minimum sensitivity 67dB/40 ±1.0kHz (0dB vs 1V µbar) Ř=3.9kΩ
- Case size: 0.30"H x 0.43"Dia

Part No.	Mfr. Cross Ref. No.	1	10
136653EX	40TR16F	\$6.95	\$6.29
139491EX	40TR12B	. 6.95	6.29

#### \overline Fujikura

#### -1.1 to 2.5 PSI Pressure Sensor

- · Measurable pressure range: -1.1 to 2.5 PSI
- Maximum load pressure: twice of rated pressure
- Volt-level output
- Operating voltage: 5V @ <10mA</li>
- Maximum excitation voltage: 8V
- Pressure type: gauge pressure
- Pressure media: non-corrosive gas
- On-chip amplification and temp. compensations
- Pre-calibration of offset voltage and span

Product No.

10 XFPN-025-KPGRNW1

#### Latched Hall Effect Sensor

- · SP (south pole): on NP (north pole): off
- Supply voltage: 20Vcc
- · Supply current: 4mA
- Output current: 20mA
- Max. operating point: ≤ 130 Max. release point (gauss): ≤ 130

Part No. Mfr. Cross Ref. No. 10 174043EX HI-300 .....

More at www.Jameco.com

#### (M) 0 to 1.45 PSI Pressure Sensor

- Typical full scale span @'35mV: 0-10kPa'(0-1.45 PSI)
- Maximum pressure (P<sub>MAX</sub>): 75kPa (10.875 PSI)
- Operating volt. (typical): 3VDC @ 6mA
- · Applications: air movement control, level indicators, leak detection, robotics and industrial controls
- 1/8" diameter tubing applicable
- Size: 0.7"Dia. x 0.78"Thick (with nozzle)

Part No.	Product No.	1	10
218827EX	MPX10GS	\$8.99	\$7.99

#### Vibration/Tilt Switch Sensor

Detects motion or vibration when the switch is mounted such that its main axis is near to the horizontal.

- · Contact form: SPDT
- Max. contact load: 24VDC/115VAC @ 0.5A
- Typical contact resistance: 1Ω (measured at 5VDC @ 0.01A with switch tilted 45° beyond operating point)
- Tilt: one plane only; ±10 deg. included angle
- · Minimum operating temperature: -37°C

Part No. Mfr. Cross Ref. No. 235926EX \$1.25 Series 3004 ...... \$1.49







#### **Open-Frame Switching Power Supplies**





#### More Power Supplies @ www.Jameco.com/PS

Jameco		Manufacturer	Output		Input	Ripple & Noise		Pric	ing
Part No.	Mfr.	Product Number	Voltage@Current (min-max)	Pwr. (W)	(VAC @ Hz)	(mV p-p)*	Certification	1	10
148603EX	Mean Well	PS-25-12	+12V@0-2.1A	25.2	85-264@47-63	100	UL/CUL/TUV/CE	\$18.95	\$17.95
190086EX	Artesyn	NFS40-7608	+5V@0-3A; +12V@0-2A; -12V@0-0.35A	43.2	85-264@47-440	50	UL/CSA/VDE/CE	46.39	41.75
88401EX	Mean Well	PT45B	+5V@0.4-3A; +12V@0.2-2A; -12V@0-0.3A	45.0	90-264@47-440	50	UL/CUL/TUV/CE	29.95	23.09
148638EX	Mean Well	PS-65-12	+12V@0-5.2A	62.4	90-264@47-440	100	UL/CUL/TUV/CE	29.95	25.29
194896EX	Mean Well	PD65B	+5V@0.4-3.5A; +24V@0.2-2A	65.5	90-264@47-440	50	UL/CUL/TUV/CE	34.95	26.39

#### Special Offers at Great Savings - 90-Day Warranty

Jameco		Manufacturer	Output		Input	Size Inches	Mounting Holes Inches	Ripple & Noise	Load Reg.	Line Reg.		Pric	ing:
Part No.	Mfr.	Product No.	Voltage@Current (min-max)	Pwr.(W)	(VAC @ Hz)	(LxWxH)	(LxWxDia.)	(mV p-p)*	(±%)*	(±%)*	Certification	1	10
166967EX	Super Mac	U002512010	+5V@2.5A; +12V@1A	24.5	100-240@50-60	3.7x2.5x1.2	_	50	_	1.0	UL/CSA/TUV	\$14.29	\$12.15
163985EX	Samsung	PSPL430201A	+5V@5A; +12V@1.5A	43.0	100-120@50-60	6.1x2.1x1.0	_	_	_	_	UL/CUL	11.95	10.16
171731EX	Delta	DPS-60MPB	+3.3V@0.8-8A; +5V@1-9A;	65.0	90-270@47-63	5.8x3.3x1.4	_	50	2.0	2.0	UL/CUL/TUV	6.95	5.89

<sup>\*</sup> Primary Output For complete specifications and our entire listing of power supplies please visit our website @ www.Jameco.com

#### **Enclosed Switching Power Supplies**

lamasa		Manufacturer	Output		lmmid	Ripple & Noise		Prio	cing
Jameco Part No.	Manufacturer	Product Number	Voltage@Current (min-max)	Pwr. (W)	Input (VAC @ Hz)	(mV p-p)*	Certification	1	10
123246EX	Mean Well	S-25-5	+5V@0-5A	25.0	85-264@47-63	50	UL/TUV/CE	\$39.95	\$32.10
123254EX	Mean Well	S-25-12	+12V@0-2.1A	25.2	85-264@47-63	100	UL/TUV/CE	39.95	32.10
123271EX	Mean Well	S-25-24	+24V@0-1.1A	26.4	85-264@47-63	100	UL/TUV/CE	39.95	32.10
123297EX	Mean Well	S-40-12	+12V@0-3.5A	42.0	85-264@47-63	100	UL/CUL/TUV/CE	44.95	38.60
123334EX	Mean Well	S-60-12	+12V@0-5A	60.0	85-264@47-63	120	UL/CUL/TUV/CE	53.95	41.50
123342EX	Mean Well	S-60-15	+15V@0-4A	60.0	85-264@47-63	150	UL/CUL/TUV/CE	53.95	41.50
123351EX	Mean Well	S-60-24	+24V@0-2.5A	60.0	85-264@47-63	150	UL/CUL/TUV/CE	53.95	41.50
123457EX	Mean Well	D-60A	+5V@0.3-4A; +12VDC@0.2-3A	56.0	85-264@47-63	75	UL/CUL/TUV/CE	54.95	44.10
123465EX	Mean Well	D-60B	+5VDC@.3-3A; +24VDC@0.2-1.8A	58.0	85-264@47-63	75	UL/CUL/TUV/CE	54.95	44.10
147045EX	Mean Well	Q-60B	+5V@0.5-5.5A; +12V@0.1-2A;	60.0	85-264@47-63	100	UL/CUL	59.95	49.90
			-5V@0-0.5A; -12V@0-0.5A						
132370EX	Mean Well	Q-120D	5V@2-8A; 24V@0.2-2A;	124.0	88-132/176-264@47-63	80	UL/CUL/TUV/CE	79.95	63.79
			12V@0.2-2A; -12V@0.2-1A						
173411EX	Mean Well	SP-150-15 <sup>†</sup>	15V@0-10A	150.0	85-264@47-63	100	UL/CUL/TUV/CE	91.95	82.76
173403EX	Mean Well	SP-150-24 <sup>†</sup>	24V@0-6.3A	150.0	85-264@47-63	150	UL/CUL/TUV/CE	91.95	82.76
123431EX	Mean Well	SP-150-15	15V@0-10A	150	88-132/176-264@47-63	180	UL/CUL/TUV/CE	69.95	58.30
123449EX	Mean Well	S-150-24	24V@0-6.5A	156.0	88-132/176-264@47-63	240	UL/CUL/TUV/CE	69.95	58.30
167345EX	Mean Well	S-150-48	48V@0-3.2A	153.6	88-132/176-264@47-63	240	UL/CUL/TUV/CE	69.95	58.30
194773EX	Mean Well	SP-200-12 <sup>†</sup>	+12V@0-16.7A	200.4	85-264@47-63	100	UL/CUL/TUV/CE	102.95	92.66
137656EX	Mean Well	S-240-24	+24V@0-10A	240.0	88-132/176-264@47-63	180	UL/CUL/TUV/CE	109.95	98.95
137390EX	Mean Well	SP-300-12 <sup>†</sup>	+12V@0-24A	288.0	88-264@47-63	150	UL/CUL/TUV/CE	181.95	159.70
137402EX	Mean Well	SP-300-24 <sup>†</sup>	+24V@0-12.5A	300.0	88-264@47-63	150	UL/CUL/TUV/CE	181.95	159.70
196656EX	Mean Well	S-320-24	+24V@0-12.5A	300.0	88-132/176-264@47-63	150	UL/CUL	124.95	112.80
147053EX	Mean Well	SP500-24 <sup>†</sup>	+24V@0-20A	480.0	100-240@50-60	240	UL/CUL/TUV/CE	249.95	216.10
190713EX	Mean Well	PSP-500-12 <sup>†</sup>	+12V@0-41.5A	498.0	90-264@47-63	150	UL/CUL/TUV/CE	269.95	232.09
190721EX	Mean Well	PSP-500-24 <sup>†</sup>	+24V@0-20.8A	499.2	90-264@47-63	150	UL/CUL/TUV/CE	269.95	232.09

<sup>†</sup> PFC (Power factor correction)

#### Special Offers at Great Savings - 90-Day Warranty

Jameco		Manufacturer	Output		Input	Size Inches	Mounting Holes Inches	Ripple & Noise	Load Reg.	Line Reg.		Pric	ing
Part No.	Mfr.	Product No.	Voltage@Current (min-max)	Pwr.(W)	(VAC @ Hz)	(LxWxH)	(LxWxDia.)	(mV p-p)*	(±%)*	(±%)*	Certification	1	10
205698EX	Volgen	ESK80U-1515	+5V@10A; +15V@0.8A; -15V@0.8A	74	115/220@50-60	8.7x5.0x1.5	_	I	1		UL/CSA	\$20.41	\$18.56
199515EX	Globtek	RT-3S150-24	24V@6.5A	150	115/230@50-60	7.9x4.3x1.9	6.8x3.8x0.14	100	5.0	5.0	UL/CE	59.95	47.95

<sup>\*</sup> Primary Output

#### **Quick Connect Power Transformer**

Quick connect transformers are bobbin wound for smaller size and reduced electrostatic shielding requirements
 Terminals: quick connect, solder
 Input voltage: 115/230VAC, 50-60Hz

Part	Mfr. Cross	Triad	Input	Output		Size of	Dii	Dimensions		Weight	Pric	ing
Number	Ref. No.	Cross	Voltage	Voltage	VA Cap	Connect	L"	W"	H"	(lbs.)	1	10
101864EX	XFR2424Q	FD724	115/230VAC	24VCT @ 2.4A	57.6	0.187"	2.40	2.70	2.25	1.7	\$11.95	\$10.79







#### 13.8VDC Precision Regulated Linear Power Supply

• Output: 13.8VDC @ 4A

- Input voltage: 115VAC @ 60Hz
- · Illuminated rocker switch
- · Fuse protected
- Heavy duty 5'8" 3-prong power cord
- · Short-circuit protection
- · Output terminals: see web for mating cigarette plugs and mating banana terminal plugs



		1
	-	
-	9	

plugs un						
Part No.	Model No.	Output Terminals	Size (L" x W" x H")	Wt. (lbs.)	1	10
135845EX	RPS1204	Banana term/cig. plug	6.7 x 5.2 x 3.2	5.5	\$29.95	\$26.95

#### 276-Watt Precision Regulated Linear Power Supply

- · Output current: 20A
- · Illuminated rocker switch
- Short circuit protection
- · Output terminals: see web for mating cigarette plugs and page 58 for mating banana terminal plugs
- Output: 13.8 VDC Fuse protected
- Input voltage: 115VAC @ 60Hz

Includes: heavy duty 5'8" 3-prong power cord



Part No.	Model No.	Output Terminals	Size (L" x W" x H")	Wt. (lbs.)	1	10
138675EX	52-192012	Banana	10.0 x 7.8 x 4.4	15.9	\$109.95	\$99.95



#### 3 & 15-Watt DC-to-DC Converters

- · Short-circuit/over-
- current protection One-year warranty

Input: 120VAC @ 60Hz

lean Well is an ISO-9001 **Certified Company** 







155918EX

Input voltage: 9.2VDC-18VDC	- 40
Built-in EMI filter, low ripple noise	althirt
0' 0 0" 0 0" 4 5"	100 100 100

25-Watt DC-to-DC Converters

- Size: 3.9"L x 3.9"W x 1.5"H
- Voltage output adjustable
- Input/output connector:
- screw terminals
- Mating conn.: P/N 103587EX or 103595EX, see web

Part No.	Product No.	Output	1	10
175804EX	SD25A12	12V @ 2.1A	\$40.95	\$30.99
175812EX	SD25A24	24V @ 1.1A	40.95	30.99

Part	Product		Power	Input Voltage	Output Voltage	Output	Ripple		Size	Pric	ing
Number	Number	Fig.	(W)	Range (VDC)	(VDC)	Current (mA)	p-p (mV)	Pins	L" x W" x H"	1	10
155918EX	DCW03A05	1	3	9-18	+5/-5	300	100	8	1.2 x 0.7 x 0.5	\$20.95	\$18.89
161701EX	DCW03A12	1	3	9-18	+12/-12	125	100	8	1.3 x 0.8 x 0.5	20.95	18.89
155707EX	SKE15A12	2	15	9-18	+12	1,250	60	4	2.0 x 2.0 x 0.4	34.95	31.19

#### Wall Adapters

#### **AC-to-AC Regulated Wall Adapters**

We will change any power plug (see web) on any wall adapter listed (100 pc. minimum).

	2-Wire AC Input											
			Output Rating Output Plug Output									
Part		Product	Voltage	Current	ID x OD Plug Type	Size (+0%-20%)	Case	Cord	Weight	Agency	Pric	cing
Number	Manufacturer	Number	(VAC)	(mA)	F = female; M = male	H" x W" x D"	Color	Length	(lbs.)	Approvals	1	10
210729EX	ITE Power Supply	MKA35090300	9	300	2.1mm x 5.5mm F	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CUL	\$3.95	\$3.55
100061EX	Jameco	AC905F1	9	500	2.1mm x 5.5mm F	2.4 x 2.0 x 1.6	Black	6'	0.6	UL/CUL	4.59	4.13
112336EX	Jameco	AC915F5	9	1500	2.5mm x 5.5mm F	2.5 x 2.2 x 2.0	Black	6'	0.9	UL	9.95	7.99
101258EX	Jameco	41A12-500	12	500	2.1mm x 5.5mm F	2.8 x 2.0 x 1.6	Black	6'	0.6	UL/CSA	4.59	4.15
10081EX	Leader Electronics	AC1210F1	12	1000	2.1mm x 5.5mm F	2.6 x 2.4 x 2.0	Black	6'	0.7	UL/CSA	5.19	4.67
100167EX	Jameco	AC1210F5	12	1000	2.5mm x 5.5mm F	3.2 x 2.4 x 2.0	Black	6'	0.7	UL/CSA	5.19	4.67
171408EX	_	AC1405F1	14	500	2.1mm x 5.5mm F	2.8 x 2.0 x 1.6	Black	6'	0.6	UL/CSA	4.49	4.04
185439EX	Ault	T5182200-A020G	18	1850	2.1mm x 5.5mm right angle F	3.3 x 2.7 x 2.2	Black	6'	1.7	UL/CSA	7.49	6.74
87581EX	Jameco	AC2405F1	24	500	2.1mm x 5.5mm F	2.5 x 2.2 x 1.9	Black	6'	0.9	UL/CSA	5.19	4.67
140599EX	Jameco	AC2410F1	24	1000	2.1mm x 5.5mm F	3.0 x 2.2 x 1.9	Black	6'	1.2	UL/CSA	8.95	8.09
10102EX	Jameco	AC2410M3	24	1000	3.5mm male	3.0 x 2.2 x 1.9	Black	6'	1.2	UL/CSA	7.95	7.19
176356EX	Jameco	WP573024	24	1250	2.1mm x 5.5mm F	3.4 x 2.7 x 2.2	Black	5'8"	1.6	UL/CSA	10.49	9.45

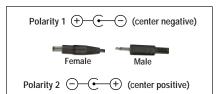




#### AC-to-DC Regulated Wall Adapters

We will change any power plug (see web) on any DC wall adapter listed (100 pc. minimum).





	2-Wire AC Input – Regulated												
			Output	Rating	Output Plug				Output				
Part		Product	Voltage	Current	ID x OD Plug Type / Polarity	Input	Size (+0%-20%)	Case	Cord	Weight	Agency	Pric	cing
Number	Manufacturer	Number	(VDC)	(mA)	F = female; M = male	VAC @ Hz	H" x W" x D"	Color	Length	(lbs.)	Approvals	1	10
164101EX	Jameco	DCR505F12	5	500	2.1mm x 5.5mm F 2	120@60	2.8 x 2.0 x 1.6	Black	6'	0.6	UL/CSA	\$9.95	\$8.96
171301EX	Imitation	JOD48U08	5	1000	2.1mm x 5.5mm F 2	120@60	3.1 x 2.9 x 2.0	Black	6'	1.0	UL/CUL	10.95	9.89
168604EX	ITE Power Supply	RWP480505	5	1000	2.5mm x 5.5mm F 2	120@60	3.3 x 2.2 x 1.9	Black	6'	1.2	UL/CSA	11.39	10.49
190529EX	NOMA	AD9123	9	250	2.5mm x 5.5mm right angle F 2	120@60	2.5 x 2.0 x 1.6	Black	12'	0.5	UL/CSA	6.49	5.85
162996EX	Jameco	DCR1205F12	12	500	2.1mm x 5.5mm F 2	120@60	3.2 x 2.2 x 1.9	Black	6'	0.9	_	9.95	8.96
170245EX	Jameco	DCR1210F12	12	1000	2.1mm x 5.5mm F 2	120@60	3.2 x 2.3 x 2.0	Black	6'	1.2	_	13.95	12.59



#### **AC-to-DC Unregulated Wall Adapters**

					2-Wire AC Input –	Unregulated						
			Output	t Rating	Output Plug			Output				
Part		Product	Voltage	Current	ID x OD Plug Type / Polarity	Size (+0%-20%)	Case	Cord	Weight	Agency	Pric	cing
Number	Manufacturer	Number	(VDC)	(mA)	F = female; M = male	H" x W" x D"	Color	Length	(lbs.)	Approvals	1	10
112070EX	Jameco	DC502F5	5	225	2.5mm x 5.5mm F 2	1.9 x 2.2 x 2.0	Black	7'	0.3	UL/CSA	\$7.29	\$6.59
133891EX	Horizon	DC903F1	9	300	2.1mm x 5.5mm F 2	2.0 x 1.5 x 1.5	Black	6'	0.4	UL/CSA	3.95	3.55
140636EX	Jameco	DC904F5	9	400	2.5mm x 5.5mm F 2	2.6 x 2.0 x 2.0	Black	6'	0.6	UL/CSA	4.19	3.79
170270EX	Panasonic	PQLV1	9	500	2.1mm x 5.5mm right angle F 1	2.7 x 1.9 x 1.8	Gray	6'	0.6	UL/CSA	4.49	4.04
100853EX	Jameco	DC905F12	9	500	2.1mm x 5.5mm F 2	2.5 x 1.9 x 1.7	Black	6'	0.6	UL/CSA	4.95	4.46
100175EX	Jameco	DC906F5	9	600	2.5mm x 5.5mm F 2	2.5 x 1.9 x 1.8	Black	6'	0.6	UL/CSA	5.49	4.75
100888EX	Everglow	DDU090100	9	1000	2.1mm x 5.5mm F 2	2.6 x 2.4 x 2.0	Black	6'	1.0	UL/CSA	7.95	7.16
158043EX	Jameco	DC1202F12R	12	200	2.1mm x 5.5mm right angle F 2	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CSA	4.49	4.04
114825EX	Jameco	DC1205ST	12	500	Connector end may vary	2.5 x 2.0 x 1.7	Black	6'	0.6	CUL	4.75	4.35
102496EX	ITE Power Supply	DC1205F12	12	500	2.1mm x 5.5mm F 2	2.5 x 1.9 x 1.6	Black	6'	0.6	UL/CSA	4.49	4.49
131300EX	Jameco	SCP41	12	500	2.1mm x 5.5mm right angle F 2	2.6 x 1.9 x 1.7	Beige	6'	0.6	UL/CSA	5.49	4.94
102277EX	Jameco	DC1205F5	12	500	2.5mm x 5.5mm F 2	2.5 x 2.1 x 1.7	Black	6'	0.6	UL/CSA	5.19	4.67
100870EX	Jameco	DC1210F1	12	1000	2.1mm x 5.5mm F 2	3.1 x 2.4 x 2.0	Black	6'	0.9	UL/CSA	8.19	7.37
105478EX	Superworld	DC1210F5	12	1000	2.5mm x 5.5mm F 2	3.1 x 2.4 x 2.0	Black	6'	1.0	UL/CSA	7.49	6.74
196779EX	Jameco	D1212950	12	1200	2.5mm x 5.5mm F 2	3.0 x 2.3 x 1.9	Black	6'	1.0	UL/CUL	8.79	7.91
101291EX	KCS Industries	DC1215F5	12	1500	2.5mm x 5.5mm F 2	3.4 x 2.7 x 2.2	Black	6'	1.5	UL	10.39	9.35
192786EX	_	MK135100	13.5	1000	2.1mm x 5.5mm F 1	2.9 x 2.3 x 2.0	Black	6'	1.0	UL	3.78	3.43
190001EX	Jameco	DC1505F1	15	500	2.1mm x 5.5mm F 2	2.3 x 2.4 x 1.9	Black	6'	0.8	UL/CSA	6.49	5.84
155803EX	Jameco	DC1506F11	15	600	2.1mm x 5.5mm F 1	2.9 x 2.3 x 1.9	Black	6'	1.0	UL/CSA	8.95	8.06
203502EX	Jameco	48150900	15	900	2.5mm x 5.5mm F 2	2.6 x 2.2 x 1.9	Black	6'	1.0	UL/CSA	6.95	6.25
191652EX	Jameco	DC1510F12	15	1000	2.1mm x 5.5mm F 2	3.3 x 2.2 x 1.9	Black	6'	1.0	UL/CSA	9.59	8.65
162317EX	Jameco	DC1605F1	16	500	2.1mm x 5.5mm F 2	2.2 x 2.4 x 1.9	Black	6'	0.8	UL/CSA	7.95	6.95
102285EX	Jameco	DC2404F1	24	400	2.1mm x 5.5mm F 2	3.0 x 2.3 x 2.0	Black	6'	0.9	UL/CUL	7.95	7.19
196322EX	3Com	P48240600A020G	24	600	2.1mm x 5.5mm F 2	3.3 x 2.3 x 1.9	Black	6'	1.1	UL/CSA	8.95	8.05
168495EX	Jameco	DC2408F1	24	800	2.1mm x 5.5mm F 2	2.9 x 1.9 x 1.6	Black	6'	0.4	UL/CUL/TUV	10.95	9.89
220960EX	Jameco	DFU240100	24	1000	2.1mm x 5.5mm F 1	3.4 x 2.7 x 2.2	Black	6'	1.6	UL/CUL	13.89	12.95

#### **Slim Line Switching Wall Adapters**





Now you can use all of the outlets in your power strip!

SLIM LINE switching wall adapters are compact in size, lightweight, and the perfect power solution in all those applications where space is critical. Unlike traditional wall adapters, these do not block unused outlets on wall plates, power strips and surge protectors. And their high efficiency satisfies requirements for minimizing power losses.

- Output connector: 2.1mm x 5.5mm F2 (center positive)
- Input voltage: 100 240VAC@47-63Hz Agency approvals: UL/CUL/TUV/CE
- 2-wire AC input
- · Output cord length: 6'
- · Color: black

		Output	Rating	Dimensions	Weight	Pric	ing
Part No.	Product No.	Volts (VDC)	Current (mA)	(H"xW"xD")	(lbs.)	1	10
252700EX	S08AB050050	5.0	500	2.5x1.1x1.7	0.2	\$10.49	\$9.52
252718EX	S08AB050100	5.0	1000	2.5x1.1x1.7	0.2	10.95	9.94
252726EX	S08AB050150	5.0	1500	2.5x1.1x1.7	0.2	11.49	10.43
252751EX	S08AD090050	9.0	500	2.5x1.1x1.7	0.2	10.95	9.94
252806EX	S08AE120050	12.0	500	2.5x1.1x1.7	0.2	10.95	9.94
252822EX	S15AE120100	12.0	1000	2.9x1.3x2.2	0.3	11.95	10.85
252831EX	S15AE120140	12.0	1250	2.9x1.3x2.2	0.3	12.95	11.76
254756EX	S15AF150080	15.0	800	2.9x1.3x2.2	0.2	11.95	10.85
252857EX	S08AH240025	24.0	250	2.5x1.1x1.7	0.2	10.95	9.94

#### **Automobile Power Plug & Cord Assembly**

- Screw assembly with strain relief
- Plugs directly into cigarette lighter

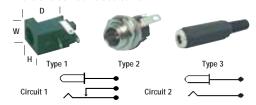
Accepts .25" x 1.25" fuse
 124759EX: 3' cord pigtail end



	p.g	TIOOUTEN	12-170727	
Part No.	Description		1	10
115001EX	W/ 5A/250VAC fuse		\$1.95	\$1.65
124759EX	W/ 3A/250VAC fuse & 3	' cord	1.89	1.72

#### Male Power Jacks

· Dimensions do not include barrel



Terminals	Code
Solder eyelet	А

Mounting	Code
PCB	В
Panel & PCB	С
Cable	D

Part	Mfr. Cross	Dimensions	Type/	Circuit/	Mating Plug	Pri	cing
Number	Ref. No.	H x W x D (mm)	Mount	Terminal	(below)	1	10
		2.1 mm	Male Jac	ks			
101178EX	PP014	10.9 x 9.0 x 14.5	1/B	1/A	2.1 mm fem.	\$.49	\$.44
151554EX	DPJ-026	15.1 x 8.0 Dia.	2/C	1/A	2.1 mm fem.	1.49	1.25
159610EX	PJ1014A	35.8 x 12.6 Dia.	3/D	2/A	2.1 mm fem.	1.49	1.25
		2.5 mm	Male Jac	ks			
101186EX	PP014A	11.0 x 9.0 x 14.5	1/B	1/A	2.5 mm fem.	\$.59	\$.53
151562EX	DPJ-026A	15.1 x 8.0 Dia.	2/C	1/A	2.5 mm fem.	1.49	1.24
159505EX	PJ1015A	35.8 x 12.6 Dia.	3/D	2/A	2.5 mm fem.	1.39	1.25

#### Female Power Plugs

- · Solder eyelets 1mm diameter
- Threaded screw-on housing (strain relief)
- Use with AC/DC wall adapters
   Shield crimp tabs
   P(N 1002005)
- Use 24 AWG 2 conductor wire, P/N 100280EX, to make custom length power cables, pg 43



Over 99% of our products are in stock! Place your order by 6PM EST for same business day shipment. Call us today at 1-800-831-4242.

Strain Relief



#### **AC-to-DC Regulated Switching Table-Top Power Supplies**

• Regulated and unregulated outputs (see "Output Plug")

Input voltage: Regulated: 100-240VAC @ 50-60Hz

Unregulated: 120VAC @ 50-60Hz

Polarity 1 + (center negative)





Polarity 2 — (center positive)









206455EX

L					remai					DIN W	21	J6455EX	155213EX	1/200	D4EX
Power	Part Number	Mfr. 🔺	Mfr. Cross Ref. No. 🔺	Pwr (W)		Input VAC@Hz	Output Plug/Connector ID x OD/Plug Type/Polarity F = female; M = male		Color	Size (L" x W" x H")	Cords* (DC/AC)	Weight (lbs.)	Agency Approvals	Pric	ing 10
						2-W	ire AC Input – Regula	ated	Switc	hing					
3	195805EX	Horizon	DCR920F12	18	+9/2.0	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	4.2 x 2.6 x 1.4	6'/6'	0.9	UL/CUL/TUV/CE	\$26.95	\$24.29
-25	195768EX	Horizon	DCR920F52	18	+9/2.0	100-240@50-60	2.5mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.9	UL/CUL/TUV/CE	22.95	20.69
18	205911EX	Delta	ADP-25HB <sup>†</sup>	25	+30/0.83	100-125@50-60	2.1mm x 5.5mm F 2	No	Black	3.5 x 2.4 x 1.2	6'/7'	1.1	UL/CUL	17.49	15.75
						3-W	ire AC Input – Regula	ated	Switc	hing					
Г	196218EX	GlobeTek	GT210891005T3	10	+5/2.0	120-240@50-60	2.1mm x 5.5mm F 2	No	Black	3.4 x 1.9 x 1.3	6'/ <b>*</b>	0.4	UL/CUL/TUV/CE	\$19.95	\$17.95
	206236EX	Netgear	A15D3-05MP	15	+5/3.0	100-240@50-60	2.5mm x 5.5mm F 2	No	Black	3.8 x 2.1 x 1.4	5'/*	0.4	UL/CSA/TUV	24.95	22.49
	228996EX	Phihong	PSA31U-050	20	+5/4.0	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	4.5 x 2.4 x 1.4	6'/ <b>*</b>	0.5	UL/CUL/TUV/CE	26.95	24.25
	216531EX	Mean Well	KWM12F-P2MU	18	+12/1.5	100-240@47-63	2.5mm x 5.5mm F 2	No	Black	4.0 x 1.9 x 1.5	6'/6'	0.4	UL/CUL/TUV/CE	26.95	24.25
		Mean Well	P40A-3P2JU	40	+12/3.3	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	5.5 x 2.3 x 1.5	6'/6'	0.7	UL/CUL/TUV	35.95	32.36
Vatt	155230EX	Mean Well	SPU50-3	60	+12/5.0	100-240@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.6 x 2.9 x 1.5	6'/6'	1.3	UL/CSA/TUV	49.95	44.95
-60 Watt	206455EX	Ault	SC100	25	+16/1.56	100-240@50-60	2.5mm x 5.5mm F 2	No	Black	4.2 x 2.6 x 1.5	6'/ <b>*</b>	1.2	UL/CUL/TUV/CE	17.95	14.95
9	181884EX	Mean Well	P40A6P2J	40	+24/1.66	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	4.1 x 2.6 x 1.4	6'/6'	0.7	UL/TUV/CE	35.95	32.36
	161605EX	Mean Well	SPU50-6	60	+24/2.5	100-240@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.6 x 2.9 x 1.6	1'9"/6'	1.3	UL/CSA/TUV	44.95	39.95
	172064EX	Mean Well	SPU50-9	60	+48/1.25	100-240@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.6 x 2.9 x 1.7	6'/6'	1.3	UL/CSA/TUV	44.95	40.49
	203043EX	Ault	SC200	32	+5/4, +12/1	100-240@50-60	5-pin DIN M	No	Black	5.0 x 3.0 x 1.6	6'/ <b>*</b>	1.3	UL/CSA/CE	19.95	17.95
	190959EX	Mean Well	P25A13D-R1B	26	+5/2.5, +12/0.8	100-240@47-63	5-pin DIN M	Yes	Black	4.1 x 2.6 x 1.4	6'/6'	1.1	CUL/TUV/CE	32.95	29.69
170737£K   Wealt Well   F23K130-K18   20   13/2.3, 112/0.0   100-240@47-03   3-pill bliv wi															

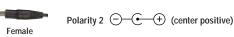
<sup>\*</sup> Use P/N 38050EX for AC cord 🔼 Manufacturer and Manufacturer Cross Reference Number may vary except for Mean Well, Phihong, GlobTek and Jameco

#### More Power Supplies @ www.Jameco.com

#### **AC-to-DC Regulated Linear Table-Top Power Supplies**











	;				Output		Output Plug/Connector								
18	Part Number		Mfr. Cross	Power	Volts (VDC)/	Input	ID x OD/Plug Type/Polarity	Pwr.		Size	Cords*	Weight	Agency	Pric	ing
^	Number	Mfr. 🔺	Ref. No. A	(W)	Current (A)	VAC@Hz	F = female; M = male	Ind.	Color	(L" x W" x H")	(DC/AC)	(lbs.)	Approvals	1	10
							2-Wire AC Input - Reg	julat	ed Lir	near					
ш	116089EX	Atari	C070042	5	+5/1	115@60	7-pin DIN M	No	Black	3.4 x 2.7 x 2.3	6'/6'	1.6	UL	\$7.95	\$7.16
1	103173EX	Jameco	JE9100	9	+5/0.6,	120@50-60	5-pin DIN M	No	Black	4.8 x 3.1 x 2.5	6'/6'	2.3	UL/CSA	20.95	18.89
5					±12/0.25										
5	173665EX	Skynet	DND-3005	15	+30/0.5	120-127@60	2.5mm x 5.5mm F 2	No	Black	3.0 x 2.5 x 2.2	5'9"/3'2"	1.4	UL/CUL	13.29	11.99
	174852EX	Jameco	DCR2410F52	24	+24/1	120@60	2.5mm x 5.5mm F 2	No	Black	4.4 x 3.0 x 2.5	6'/6'	2.7	_	14.95	12.95
							3-Wire AC Input - Reg	julat	ed Lir	near					
M C	154624EX	Motorola	5712-305-4C3E <sup>†</sup>	5.6	+5/0.5,	120@60	8-pin mini DIN M	No	Black	2.9 x 2.6 x 1.9	6'/ <b>*</b>	1.2	UL/CSA	\$12.95	\$10.39
7					±12/0.13										

<sup>\*</sup> Use P/N 38050EX , pg 26 for AC cord 🛕 Manufacturer and Manufacturer Cross Reference Number may vary except for Mean Well, Phihong, GlobTek and Jameco

#### **AC-to-DC Unregulated Table-Top Power Supplies**

Power	Part Number	Mfr. 🔺	Mfr. Cross Ref. No. 🔺	Power	Output Volts (VDC)/ Current (A)	1	Output Plug/Connector ID x OD/Plug Type/Polarity F = female; M = male		Color	Size (L" x W" x H")	Length Cords (DC/AC)	Weight (lbs.)	Agency Approvals	Prio	cing
							2-Wire AC Input – L	Jnre	gulate	d					
	136565EX	Jameco	DDC1210P	12	+12/1.0	120@60	Stripped & Tinned	No	Black	3.2 x 2.2 x 1.9	6'/6'	1.2	_	\$13.95	\$12.59
2	140880EX	Jameco	DC1215ST	18	+12/1.5	120@60	Stripped & Tinned	No	Black	3.1 x 2.1 x 1.9	6'/6'	1.5	UL	12.95	11.66
Wat	143714EX	_	DC1220F1	24	+12/2.0	120@60	2.1mm x 5.5mm F 2	No	Black	3.8 x 2.8 x 2.3	6'/6'	2.2	_	14.95	13.49
-29	139096EX	Jameco	DC2412F1	29	+24/1.2	120@60	2.1mm x 5.5mm F 2	No	Black	4.4 x 3.1 x 2.6	6'/6'	2.5	_	14.95	13.49
12					3-Wire AC Input – L			d							
	157956EX	Everglow	EFU120150	18	+12/1.5	120@60	2.5mm x 5.5mm F 2	No	Black	3.4 x 2.7 x 2.2	6'/6'	2.0	UL	\$10.95	\$9.86

<sup>▲</sup> Manufacturer and Manufacturer Cross Reference Number may vary except for Mean Well, Phihong, GlobTek and Jameco



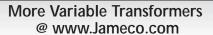


#### 120VAC to 120VAC **Isolated Transformer**

#### 300VA

- · Input voltage: 120VAC @ 60Hz
- · Input connector: 5.5' cord with 2-prong plug
- · Output voltage: 120VAC @ 2.5A (isolated)
- Size: 4.2"H x 3.2"W x 4.6"D
- · Weight: 7.0 lbs.





#### **AEEC 110VAC Variable AC Transformers**

• Input voltage: 110VAC @ 60 Hz

Power: 500 and 2000VA

· Output voltage: 0 to 130VAC

Output analog voltmeter

· Input conn.: 3-prong plug w/ 5' cord

Output conn.: 3-prong outlet type

 Lighted on/off power switch 169640EX: • 5A @ 250V fuse

Size: 8.3"L x 6.5"W x 7.0"H

Weight: 15.6 lbs.

169658EX: • 20A @ 250V fuse

• Size: 9.8"L x 8.0"W x 7.0"H

Weight: 26.5 lbs.





• Input: 110VAC or 220VAC

Power: 500-2000VA

· Output: 0-240VAC

Banana/screw input terminals Universal US/European output plugs

Lighted on/off power switch



121275EX

Part No.	Fuse	Size (L" x W" x H")	Wt. (lbs.)
121275EX	3A/250V (P/N 69438EX)	5.3 x 7.3 x 7.0	10.4
129007EX	5A/250V (P/N 10401EX)	9.4 x 6.5 x 7.7	14.8
152581EX	10A/250V (P/N 69462EX)	9.0 x 7.0 x 7.7	19.8

Part No.	Description	1	10
121275EX	500VA transformer	\$79.95	\$69.95
129007EX	1000VA transformer	164.95	148.49
152581EX	2000VA transformer	174.95	158.45

#### **Power Entry Filters**

Frequency: 50/60Hz













147109FX



169640EX

Fig. 1 (Fast-on Terminals)



Fig. 2 (Male)

Part	Mfr. Cross	Corcom				Current	Voltage	Agency	Terminal	I	Dimensio	n (inches)	)	Pric	ing
Number	Ref. No.	Cross	Description	Fig.	(Amps)	(VAC)	Terminals	Approvals	Size	Α	В	С	D	1	10
150615EX			Power entry filter, straight (flanged)	1	3	250	solder	UL/CSA/VDE	.16"	1.89	0.88	2.58	1.58	\$5.95	\$4.79
40601EX	03AE1*	3EF1F	Power entry filter, straight (flanged)	1	3	250	fast-on	UL/CSA/VDE	.25"	1.97	0.90	2.16	1.58	5.95	4.79
147109EX	42R02		AC power inlet (male) snap-in	2	15	250	fast-on	UL/CSA/VDE	.25"	1.22	0.94	1.13	N/A	.26	.23

<sup>\*</sup> Manufacturer may vary

#### Computer and Power Cords

Mfr. Cross Reference No.

- · Molded connectors
- · Excellent resistance to jacket abrasion
- Temperature:

Part No.

37997EX

196285EX

38041EX

25541EX

117356FX

-20°C to +60°C · Voltage rating: 300 volts

VW-1

17236

17249

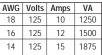
17250

17504

17006

8120-6177

LL40378



Description

3-conductor power cord with pigtail

3-conductor power cord with pigtail

3-conductor power supply cord

3-conductor power supply cord

3-conductor power supply cord

3-conductor right angle power supply cord



2-conductor "8" style power cord for laptops and power supplies

Configuration 8 Laptop Power Cord (Fig. 1)



Power Cord w/ pigtail (Fig. 2)

Wt. (lbs.)

.30

.80

.37

.36

.71

41



Fig.

2

2

3

3

3

SALE

Approvals

UL/CSA

UL/CSA

UL/CSA

UL/CSA

UL/CSA

UL/CSA

UL/CSA

**RFI Power Cord** (Fig. 3)

Length

6

10'

6'

6' 7"

6'

AWG

18/2

18/3

16/3

18/3

18/3

14/3

18/3



SVT

SJT

SVT

SVT

SJT

SVT

Hospital Grade Cord Gray Right Angle Computer Power Cord (Fig.4)



3 95

3 19

#### International Step-Up/Step-Down Transformers



Wide selection to meet your power requirements	•	Wide selection	to meet	your	power	requirements
--	---	----------------	---------	------	-------	--------------

Part	Mfr. Cross		Primary	Secondary	Power	[	Dimension	s	Weight	Pric	ing
Number	Ref. No.*	Fig.	Voltage	Voltage	(VA)	H"	W"	D"	(lbs.)	1	10
99573EX	AC110V50	1/A	220VAC	110VAC	50	2.50	1.63	1.33	0.7	\$9.95	\$8.99
85016EX	AC110V300	2/A	220VAC	110VAC	300	3.50	3.05	3.95	4.8	27.95	24.95
111851EX	AC110V500	2/A	220VAC	110VAC	500	3.99	3.60	4.84	8.5	34.95	31.49
142906EX	AC110V1500	2/A	220VAC	110VAC	1500	5.25	4.50	5.75	15.2	79.95	71.95
85008EX	AC220V300	2/A	110VAC	220VAC	300	3.50	3.05	3.95	4.8	27.95	24.95
222092EX	G1SD-1000	2/A	220VAC	110VAC	1000	5.38	4.38	8.13	31.0	149.95	132.55

<sup>\*</sup> Manufacturer may vary







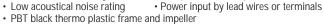
<sup>3-</sup>conductor power cord w/ hospital grade male (green dot) Thermoplastic Cord Jacket Type: Light duty; SPT-2 (Flat): Junior duty; SVT (Round): Light service; SJT (Round): Junior service

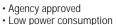




Call for additional OEM PRICING - we carry major manufacturers.

- Low profile
- · Ball and sleeve bearings











102955EX



Size Conversion: Inches to mm

Inches	0.25	0.40	0.47	0.60	0.80	0.90	1.00	1.18	1.26	1.40	1.50	1.60	1.80	2.00	2.36	2.48	3.15	3.63	3.72	3.83	4.68	5.90	6.75
mm	6	10	12	15	20	23	25	30	32	35	38	40	45	50	60	78	80	92	95	97	120	150	170

Part		Product	Voltage	Size*	Air Flow		Current	Power	Agency	Noise	Connection	Pric	ing
Number	Manufacturer	Number	(VDC)	(W" x H" x D")	(CFM)	Bearing	(mA)	(Watts)	Approvals	(dBA)	(Leads)	1	10
163475EX	Nidec	C34427-55APP	5	1.00 x 1.00 x 0.40	0.5	Ball	90	0.45		22	2"	\$4.95	\$4.46
196373EX	Sunon	KD0504PFB2-8	5	1.60 x 1.60 x 0.40	5.5	Ball	90	0.5	UL/CUL	23	12"	8.95	8.09
102921EX	Sunon	KD0504PFS2-8	5	1.60 x 1.60 x 0.40	6.3	Sleeve	120	0.6	UL/CUL	24.3	12"	7.95	6.95
207061EX	Adda	AD0505MB-G90	5	2.00 x 2.00 x 0.40	10.5	Ball	120	0.7	UL/CSA/CE	24	11"	7.95	6.55
189691EX	Sunon	KD1204PFS2	12	1.60 x 1.60 x 0.40	6.3	Sleeve	70	0.9	UL/CSA/TUV	24	12"	7.95	7.19
161699EX	Sunon	KD1204PFB2-8	12	1.60 x 1.60 x 0.40	6.3	Ball	70	0.6	UL/CSA/TUV	30	12"	7.95	6.95
212716EX	Sunon	KDE1204PFB2-H	12	1.60 x 1.60 x 0.40	6.5	Ball	90	1.1	UL/CUL/TUV/CE/VDE	27	12"	6.65	4.95
213428EX	Adda <sup>1</sup>	ADO412HB-G76	12	1.60 x 1.60 x 0.40	6.7	Ball	100	1.2	CE	30.2	12"/3 leads	7.59	7.19
75344EX	Delta	DFB0412M	12	1.60 x 1.60 x 0.80	7.3	Ball	80	0.8	UL/CSA/VDE/CE	28	4.5"	7.69	6.92
206164EX	Sunon	KDE1204PKBX-8	12	1.60 x 1.60 x 0.80	10	Ball	90	1.1	UL/TUV/CE	29.4	12"	8.95	7.95
212644EX	Sunon	KDE1205PFB3-HG	12	2.00 x 2.00 x 0.40	8.5	Ball	60	0.7	UL/CUL/TUV/CE/VDE	26	12"	6.49	5.84
212652EX	Sunon	KDE1205PFB2-HG	12	2.00 x 2.00 x 0.40	10.6	Ball	80	1.0	UL/CUL/TUV/CE/VDE	31.5	12"	6.65	4.95
212661EX	Sunon	KDE1205PFB1-HG	12	2.00 x 2.00 x 0.40	12.5	Ball	110	1.4	UL/CUL/TUV/CE/VDE	36	12"	6.65	4.95
175046EX	Globe Motors	D24-B08A-04W3-000	12	2.36 x 2.36 x 0.80	10.6	Ball	90	0.8	UL/CSA/TUV/CE	22	13"	6.95	6.25
144160EX	Adda	AD0612LB-C70GL	12	2.36 x 2.36 x 0.80	12.6	Ball	80	1.0	UL/CSA/TUV	22.7	6"	8.49	7.69
150421EX	Jamicon	JF0625B1H	12	2.36 x 2.36 x 1.00	20.5	Ball	230	2.7	UL/CSA/TUV	30.5	10"	6.95	6.29
134586EX	Delta <sup>2</sup>	BFB0712H	12	2.98 x 2.98 x 1.18	11.3	Ball	360	2.6	UL/CSA/TUV/VDE	38	4"	13.95	12.59
16993EX	Various 3 *	FAN7315SL	12	3.15 x 3.15 x 1.00	25-40*	Sleeve	120-200*	1-2*	UL/CSA*	25*	4-12"*	6.95	6.29
75361EX	Various*	FAN6315BL	12	3.15 x 3.15 x 1.00	25-40*	Ball	120-200*	1-2*	UL/CSA*	25*	4-12"*	5.95	5.39
154288EX	Sunon	KDE1208PTS3-6	12	3.15 x 3.15 x 1.00	29.4	Sleeve	120	1.4	UL/CSA/TUV/CE	24.5	5.5*	4.55	4.09
185834EX	Panaflo	FBM08A12H	12	3.15 x 3.15 x 1.00	39.6	Sleeve	220	2.1		32	11"	6.95	6.29
206181EX	Sunon	KDE1208PTS1-6	12	3.15 x 3.15 x 1.00	42	Sleeve	220	2.6	UL/CSA/TUV/CE	34	9"	5.95	5.35
185826EX	NMB 4	3110KL-04W-B69	12	3.15 x 3.15 x 1.00	42	Ball	340	3.1	UL/CSA/VDE/CE	35	13"/3 leads	6.95	6.29
102955EX	Sunon	KD1208PTB1-6	12	3.15 x 3.15 x 1.00	42.5	Ball	220	2.6	UL/CSA/TUV/CE	33.5	12"	6.49	5.85
172460EX	Nidec 4	TA300DCM33406-68	12	3.15 x 3.15 x 1.00	43	Ball	290	3.5	UL/CSA	41	11"/3 leads	9.95	8.99
190983EX	Sunon	KD1209PTB1-6A	12	3.63 x 3.63 x 1.00	51	Ball	220	2.6	UL/CSA/TUV	34	12"	7.25	6.55
162739EX	NMB (Smart Fan)	3610KL-04W-B56	12	3.63 x 3.63 x 1.00	55	Ball	430	3.8	UL/CSA/VDE/CE	37	10"/3 leads	7.19	6.47
174140EX	Common Wealth	FP108MS3	12	4.68 x 4.68 x 1.00	54	Sleeve	140	1.7	UL/CSA/TUV/CE	25	12"	6.95	6.29
102875EX	Delta	WFB1212H	12	4.68 x 4.68 x 1.00	86.5	Ball	360	4.3	UL/CSA/TUV	37.6	12"	10.95	9.89
94625EX	Sunon	KD1212PMB1-6A	12	4.68 x 4.68 x 1.50	108	Ball	570	6.8	UL/CSA/TUV/CE	42	12"	11.95	10.79
189851EX	Delta	WFB1212HE	12	4.68 x 4.68 x 1.50	108	Ball	490	5.9	UL/CSA/VDE/CE	41.3	12"	11.95	10.79
189886EX	NMB	3610KL-05W-B30	24	3.63 x 3.63 x 1.00	40.6	Ball	87	2.1	UL/CSA/VDE	34	12"	7.95	6.39
153411EX	Sunon	KD2412PMB2-6A	24	4.68 x 4.68 x 1.50	98	Ball	230	5.5	UL/CSA/TUV	36.5	12"	11.95	10.79

<sup>1</sup> ATX PC type

#### AC Tube Axial Fans

- Rating 115 & 220VAC @ 50/60Hz
- · Ball and sleeve bearings
- · Low acoustical noise rating
- · Air flow from 11 to 211 CFM
- · Agency approved fans



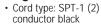






Part		Product	Voltage	Size •	Air Flow		Current	Power	Agency	Noise	Connection	Prici	ng
Number	Manufacturer	Number	(VAC)	(W" x H" x D")	(CFM)	Bearing	(mA)	(Watts)	Approvals	(dBA)	(Leads)	1	10
162704EX	Toyo	USTF60301153W	115	2.36 x 2.36 x 1.18	11	Ball	38	4	UL/CSA/CE	29	12" leads	\$15.49	\$13.95
124062EX	Sunon	SP101AT1122HBT	115	4.68 x 4.68 x 1.00	78	Ball	180	18	CSA/TUV/CE	46	terminals	13.49	10.95
118965EX	Fulltech	UF12A12BTL1	115	4.68 x 4.68 x 1.50	64	Ball	80	15	UL/CSA/TUV/CE	37	terminals	14.95	13.49
106585EX	Common Wealth	FP108-1-S1/T	115	4.68 x 4.68 x 1.50	105	Sleeve	180	12	UL/CSA/CE	47	terminals	15.95	14.39
16934EX	Common Wealth	FP108-1-S1-B	115	4.68 x 4.68 x 1.50	105	Ball	200	17	UL/CSA/TUV/CE	47	terminals	16.95	15.29
102883EX	Sunon	SP100A-1123XBT	115	4.68 x 4.68 x 1.50	117	Ball	240	20	UL/CSA/TUV/CE	50	terminals	14.95	13.95
108724EX	Fulltech	UF15AC12BTH	115	6.75 x 5.90 x 1.50	211	Ball	230	28	UL/CSA/TUV/CE	58	terminals	27.95	27.10
102891EX	Sunon	DP200A-2123XBT	220	4.68 x 4.68 x 1.50	117	Ball	120	21	UL/CSA/TUV/CE	50	terminals	15.95	14.39

#### Straight and Right-Angle 24" Fan Cords



104192EX

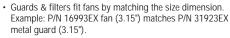
· Volt. rating: 300V · Fits all terminal fans Temp.range: 60°C

· Length 24" Part No. Description 10 \$.80 28564EX Straight socket cord ..... \$.89 104192EX .89

#### **Fan Guards and Filters**

Compatible with DC and AC Fans - above

Part No.	Description*	1	10
120037EX	2.36" metal (chrome) guard	\$.79	\$.71
31923EX	3.15" metal (chrome) guard	.79	.65
25734EX	4.68" metal (chrome) guard	1.09	.89
138579EX	3.15" alum. washable filter	2.95	2.65
130104EX	4.68" alum. washable filter	3.49	3.19







138579EX/130104EX





<sup>&</sup>lt;sup>2</sup> Blower type fan

<sup>3</sup> Replacement for the PC/XT computer power supply fan

<sup>4</sup> Speed sensor † 162739EX: Temperature control 50°C, 3 leads

<sup>\*</sup> Manufacturers & specifications may vary

#### 3-26VDC Motors

star motor



**GBM** 







231925EX



177498EX



232012EX



				Nominal	Voltage	@ Max	imum Effic	ciency						
Part	Product			Voltage	Range	Current	Current Torque		Terminal	Shaft Dia.	Shaft Length	Size	Prici	ing
Number	Number	Manufacturer	Efficiency	(VDC)	(VDC)	(Amps)	RPM	(g-cm)	Туре	(in.)	(in.)	(D" x L")	1	10
231861EX	UE-260-2850	Nichibo	34.88	1.5	1.5-3	1.150	4260	13.35	Solder	0.078	0.314	0.94 x 1.06	\$1.25	\$1.09
154915EX	ST-130-12240	Star Motor	55	3	1.5-3	0.170	3588	7.4	Solder	0.080	0.370	0.79 x 1.13	1.09	.93
231909EX	FE-260-18130	Nichibo	49.63	3	1.5-4.5	0.360	4780	10.27	Solder	0.078	0.314	0.94 x 1.06	.99	.89
231925EX	FE-260-2295	Nichibo	53.91	3	1.5-4.5	0.630	6850	13.96	Solder	0.078	0.314	0.94 x 1.06	.99	.89
231781EX	PC-130F-12240	Nichibo	33.39	6	3-9	0.254	6800	6.95	Solder	0.078	0.377	0.80 x 0.99	2.09	1.89
231992EX	UC-260-18160	Nichibo	49.85	6	3-9	0.571	7460	22.13	Solder	0.078	0.314	0.94 x 1.06	1.49	1.35
231984EX	UC-260-14275	Nichibo	48.84	6	6-12	0.208	4150	13.06	Solder	0.078	0.314	0.94 x 1.06	1.49	1.35
177498EX	RC280RA-2485	Mabuchi Motor	57	7.2	3-14	1.180	14260	33.3	Solder	0.080	0.430	0.95 x 1.20	1.75	1.55
231837EX	PC-280-15265	Nichibo	52.52	12	6-12	0.300	7230	24.96	Solder	0.078	0.433	0.94 x 1.20	2.45	2.19
232047EX	MD5-2445	Nichibo	65.98	12	6-12	2.050	19850	79.7	Solder	0.091	0.622	1.08 x 1.28	2.25	1.99
231757EX	PC-130SF-10315	Nichibo	44.60	12	6-18	0.250	6350	20.00	Solder	0.078	0.377	0.80 x 0.98	2.09	1.89
231749EX	PC-130SF-09400	Nichibo	42.50	12	6-24	0.150	5130	14.32	Solder	0.078	0.377	0.80 x 0.98	2.09	1.89
232012EX	MD5-12160	Nichibo	39.10	12	12-24	0.300	4000	34.29	Solder	0.091	0.622	1.08 x 1.28	2.25	1.99
237382EX	29SYT002	GBM	_	24	_	<0.930	>2680	178.4	Wire	0.100	0.334	0.79 x 1.89	5.95	5.35
232101EX	MD5-1980AS-AA	Nichibo	60.92	24	12-24	1.430	22600	88.5	Solder	0.091	0.512	1.08 x 1.28	3.59	3.19
237403EX	40SYT002	GBM	_	26	_	1.500	300	815	Quick Connect	0.196	1.021	1.57 x 3.85	25.95	23.35



167038FX

Operating

#### 12 VDC Reversible Gear Head Motors



155011EX

Gear Case Size

Motor Size



Shaft Size

GH30GM Series

GH35GM Series

Pricing

- · Solder-type terminal
- High torque construction
- Oil bearing design for long service life
- Insulation resistance:  $10M\Omega$
- · Dielectric strength: 300VDC

Started

153437EX

No Load

#### **HN27GD Series**

Part	Product	Rated	Range	Current	Speed	Torque	Gear	Dia. x Length	Dia. x Length	Dia. x Length		•
Number	Number	Voltage	(VDC)	(mA)	(rpm)	(g-cm)	Ratio	(in.)	(in.)	(in.)	1	10
167038EX	GH12-0953Y	12	4.5 – 24	45	14	1200	188:1	1.0 x 0.9	1.1 x 1.0	.16 x .60	\$16.49	\$14.85
GH30GM Series												
153437EX	GH12-1045Y	12	3.0 – 12	35	15	800	200:1	0.9 x 1.0	1.1 x 0.6	.16 x .70	\$18.95	\$17.09
162190EX	GH12-1324Y225	12	4.5 – 12	65	225	700	30:1	1.0 x 0.9	1.1 x 0.6	.16 x .70	16.95	15.25
						GH3	5GM Seri	es				
155011EX	GH12-1926	12	4.5 – 12	55	2	15000	3000:1	1.3 x 0.9	1.5 x 1.1	.23 x .90	\$21.95	\$19.79
155820EX	GH12-1830Y-P	12	4.5 – 12	50	4.5	13000	1000:1	1.3 x 0.9	1.5 x 1.0	.23 x .90	21.95	19.79
155838EX	GH12-1641T-L	12	3.0 – 12	65	20	10000	270:1	1.3 x 0.9	1.5 x 0.8	.23 x .90	23.95	21.59

155011EX	GH12-1926	12	4.5 – 12	55	2	15000	3000:1	1.3 x 0.9	1.5 x 1.1	.23 x .90	\$21.95	\$19.79
155820EX	GH12-1830Y-P	12	4.5 – 12	50	4.5	13000	1000:1	1.3 x 0.9	1.5 x 1.0	.23 x .90	21.95	19.79
155838EX	GH12-1641T-L	12	3.0 – 12	65	20	10000	270:1	1.3 x 0.9	1.5 x 0.8	.23 x .90	23.95	21.59
152910EX	GH12-1926Y	12	4.5 – 12	48	44	11800	100:1	1.3 x 1.0	1.5 x 0.7	.24 x .90	21.95	19.75
151440EX	GH12-1632TI	12	4.5 – 12	75	69	11000	100:1	1.3 x 0.9	1.5 x 0.7	.23 x .90	21.95	18.55
155854EX	GH12-1641T-F	12	3.0 – 12	65	87	7000	60:1	1.3 x 0.9	1.4 x 0.9	.23 x .90	21.95	19.79
155862EX	GH12-1926Y-F	12	4.5 – 12	60	100	5000	60:1	1.3 x 0.9	1.4 x 0.9	.23 x .90	21.95	19.79
161373EX	GH12-1345T	12	4.5 – 12	185	116	650	30:1	1.3 x 0.9	1.5 x 0.7	.23 x .90	23.95	21.59
161381EX	GH12-1634T	12	4.5 – 12	111	200	3600	30:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	21.95	19.79
164785EX	GH12-1640Y	12	4.5 – 24	45	300	800	10:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	23.95	21.59

#### Scott Edwards Electronics, Inc.

#### Serial Servo Controller Module

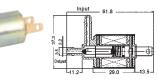
- Controls 8 pulse-proportional servos
- Receives serially at 2400 or 9600 baud
- · Module is addressable, thus allowing two units to share the same line to control a total of 16 servos
- · Connections to serial input can be established using modular adapter from DB9 to RJ11 (P/N 114737EX, pg 77) • Size (PCB): 1.9"L x 1.4"W • One-year warranty

Part No.	Description	1	10	- 1
151001EX	Serial servo controller module	\$43.95	\$41.79	

#### 12VDC Solenoid Valve

- · Operating voltage: 12VDC
- Operational temperature: -29°C to 85°C
- · Current: 350mA
- · Air leakage: 1c.c./min. max. 4psi • 0.250" quick disconnect terminals
- Size: 1.2"L x 0.92"Dia Weight: 0.1 lbs.

Part No.	Description	1	10
169834EX	Solenoid valve	\$6.95	\$6.25





#### 12VDC Continuous Push and Pull Solenoids











262271EX

142463FX

163803EX

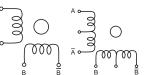
149761EX

	Mfr. Cross		Voltage	Coil Res. (±10%)	Power Consump.	Holding Force		Size			Pri	cing
Part No.	Reference No.	Туре	(VDC)	(Ohms)	(W)	(lbs. @ 20°C)	Stroke	L x Dia. (in.) <sup>†</sup>	Shaft Dia. (in.)	Wt. (lbs.)	1	10
262262EX	SMO-0837L12STD	Open frame-pull	12	36	4.0	1.10	0.24	1.5 x 1.0 x 0.8	0.310	0.21	\$7.29	\$6.56
262271EX	SMO-0837S12STD	Open frame-push	12	36	4.0	1.10	0.24	1.5 x 1.0 x 0.8	0.08/0.31*	0.21	8.39	7.59
142463EX	SMT-1130L12A	Tubular-pull	12	36	4.0	0.63	0.40	1.6 x 0.4	0.150	0.04	6.95	6.26
163803EX	A420-067074-01	Tubular-push	12	43	3.4	0.75	0.17	2.0 x 0.6	0.156	0.10	9.95	7.65
149761EX	SMT-1632S12A	Tubular-push	12	21	7.0	1.50	0.24	2.5 x 0.6	0.098	0.10	10.95	9.86

<sup>&</sup>lt;sup>†</sup>Open frame type dimensions: L" x W" x H"; \*Dual shaft

#### **GBM** Bipolar and Unipolar Stepper Motors

- · Bearing type: ball
- · Dielectric strength: 500V, 50Hz/minute
- 18" lead wires
- Ambient temperature: -10°C to +55°C
- Insulation resistance: 100MΩ @ 500VDC
- Use P/N 161998EX, see website for shaft coupler













Bipolar Unipolar

155459EX (Fig. 1)

173180FX (Fig. 2)

213321EX (Fig. 3)

162026FX (Fig.4)

(Fig.5)

GRIM IS 9U 120-4001	Certified Company

Part	Mfr. Cross		Step	No. of	Drive	Volt.	Phase Resis.	Curr.	Phase Inductance	Detent Torque	Holding Torque	Mounting Hole Space	Mounting Holes	Shaft Dia.	Shaft Length	Motor Dia.	Motor Height	Pric	ing
Number	Ref. No.	Fig.	Angle	Phases	System	(VDC)	(Ohms)	(mA)	(mH)	(g-cm)	(g-cm)	Diagonal (in.)	(in.)	(in.)	(in.)	(in.)	(in.)	1	10
237526EX	48BYGH001	1	1.8	2	Bipolar	2	2.1	950	2.3	200	1700	1.22	0.10	0.200	0.95	1.67	1.34	\$16.49	\$14.85
237518EX	42BYG017	1	1.8	2	Bipolar	6.3	15	420	16	150	1400	1.22	0.10	0.200	0.51	1.67	1.34	16.49	14.85
155459EX	42BYG023*	1	1.8	2	Bipolar	12	30	400	36	220	2100	1.73	0.1	0.197	0.6	1.7	1.3	17.95	16.29
237569EX	57BYG009	4	1.8	4	Unipolar	2.4	1	2400	1.5	_	5995	1.86	0.20	0.250	0.83	2.29	2.20	32.29	29.09
237551EX	57BYG008	4	1.8	4	Unipolar	4	3.1	1300	4.4	_	4996	1.86	0.20	0.250	0.83	2.29	2.01	29.95	26.95
237622EX	57BYGH802	5	1.8	4	Unipolar	4.8	3.2	1500	2.9	_	8157	1.86	0.20	0.250	0.83	2.24	2.20	37.69	33.95
223870EX	57BYG070	4	1.8	4	Unipolar	5.4	3.6	1500	6	977	8974	2.65	0.20	0.25	0.80	2.20	2.00	49.95	44.95
173180EX	30BYJ02AH <sup>1</sup>	2	.09°	4	Unipolar	12	200	60	49.5	400	400	1.42	0.14	0.194	0.36	1.18	.68	11.49	10.34
237542EX	57BYG007	4	1.8	4	Unipolar	12	32	380	30	_	2997	1.86	0.20	0.250	0.83	2.29	1.61	25.95	23.35
213321EX	35BY48-27	3	7.5°	4	Unipolar	12	15	800	68	90	460	1.96	0.13	0.078	0.25	1.38	0.83	17.95	14.35
162026EX	57BYG084	4	1.8	4	Unipolar	12	20	600	22	725	6000	2.65	0.2	0.250	1.0	2.2	2.0	26.95	24.29
224021EX	42BYG016	2	1.8	4	Unipolar	12	75	160	40	150	900	1.73	0.10	0.20	0.70	1.70	0.50	16.95	15.25
155432EX	42BYG228	2	1.8°	4	Unipolar	12	30	400	23	220	2000	1.73	0.10	0.20	0.90	1.70	0.50	17.95	16.29

<sup>\*</sup> Dual shaft

#### **Bipolar and Unipolar Stepper Motors**

- · Excellent for precision control
- · Can be operated in forward/reverse mode
- See website for compatible power supplies



117954EX (Fig. 1)



Solar Pocket Charger

Charge your batteries

with free solar power. Inexpensive, easy

and safe to use-





Part	Mfr. Cross		Step	No. of	Drive	Volt.	Phase Resis.	Curr.	Phase Inductance	Detent Torque	Holding Torque	Mounting Hole Space	Mounting Holes	Shaft Dia.	Shaft Length	Motor Dia.	Motor Height	Prici	ng
Number	Ref. No.	Fig.	Angle	Phases	System	(VDC)	(Ohms)	(mA)	(mH)	(g-cm)	(g-cm)	Diagonal (in.)	(in.)	(in.)	(in.)	(in.)	(in.)	1	10
117954EX	LB82773-M1	1	7.5°	2	Bipolar	5	6	800	7	100	1080	2.60	1.95	0.250	0.75	2.25	1.00	\$4.29	\$3.89
163408EX	4017-806 <sup>1</sup>	2	1.8°	2	Bipolar	9.2	38	240	52	36	664	1.73	0.15	0.155	0.23	1.66	1.25	2.49	2.15
164056EX	M82101-P1	1	7.5°	3	Unipolar	5	20	255	5	9	94	1.4	0.13	0.078	0.35	1.00	0.46	1.85	1.69
171601EX	PF35T484L <sup>2</sup>	1	3.6	4	Unipolar	7	20	350	9	40	680	1.68	0.14	0.078	0.47	1.38	0.58	4.99	4.49

<sup>1 163408</sup>EX: Dual shaft 2 171601EX Dual shaft with 10 tooth gear

#### **Energizer NiCad Rechargeable Batteries for Cordless Phones**

Energizer cordless phone batteries offer the long life and consistent reliable performance you need to get the most out of your cordless phone. 249341EX

3.6V @ 300mAh

 Replaces: AT&T 2422 / 3000 / 4051; GE TL96155; GE/Sanyo GES-PCH03; Hi-capacity B-702; Panasonic P-P303PA; RCA BT-12; Sony BP-T27; South Western Bell S60506; V-Tech 80-5074-00-00





NEW

249341FX

249332EX

nickel-metal-hydride (NiMH) batteries. • Size: 3.6"L x 3.1"W x 1.5"D

nickel-cadmium (NiCad), and

no moving parts or cords.

Re-energizes carbon-zinc, alkaline,

Includes: Battery adapter for AA, C, and D type batteries.

Part No. Description Solar pocket charger \$32.89 \$2 215239EX



3.6V @ 600mAh
 Replaces: Sony SP-A2470 / SP-A9171 / SP-S9000 / SP-S9101 / SP-S9104

Part No.	Product No.	1	5
249341EX	P-3303	. \$7.95	\$7.55
249332EX	ER-P276	. 13.95	13.25





<sup>1 173180</sup>EX: Motor step angle 7.5°; Gear ratio 85.25:1



#### Zinc Chloride, Alkaline, Lithium and NiCad Batteries

#### Zinc Chloride

Part No.	Mfr. Cross Ref.	Figure	Size	Volts	mAh	Terminals/Connection	Dimensions	1	10	25
151087EX	AA	1	AA	1.5	700	Barrel Pressure	1.9"L x 0.545"Dia.	\$.22	\$.21	\$.20
151095EX	GF6F22	2	9V	9	300	_	1.7"L x 1.0"W x 0.67" Dia	1.25	.99	.79





Alkaline

Part No.	Mfr. Cross Ref.	Figure	Size	Volts	mAh	Terminals/Connection	Dimensions	1	10	25
249181EX	LR031.5V	3	AAA	1.5	_	3-pack	1.645"L x 0.404"Dia.	\$1.49	\$1.27	\$.95
150965EX	840	4	_	4.5	600	Batt. Pack w/Con. (Apple®)	1.14"L x 0.73"W x 0.96"H	9.95	8.99	8.09
198791EX	MN1604	2	9V	9	500	_	1.73"L x 1.03"W x 0.67"H	2.85	2.55	2.29





#### Lithium & Lithium Ion

















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Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Fig. 7

Fig. 8











Fig. 17 Fig. 18

\* Samsung

#### NiCad

Part No.	Mfr. Cross Ref.	Figure	Size	Volts	mAh	Terminals/Connection	Dimensions	1	10	25
244662EX	AAA-240	17	AAA	1.2	240	Flat top	1.70"L x 0.40"Dia.	\$1.89	\$1.85	\$1.80
244540EX	AAA-240-CT	18	AAA	1.2	240	Consumer Tip	1.70"L x 0.40"Dia.	1.89	1.85	1.80
244380EX	2/3AA-320	19	2/3AA	1.2	320	Flat Top	1.10"L x 0.55"Dia.	1.35	1.17	1.09
244443EX	4/5AA-600	20	4/5AA	1.2	600	Flat Top	1.70"L x 0.55"Dia.	1.15	1.03	.93
244486EX	AA-600	21	AA	1.2	600	Flat Top	1.90"L x 0.55"Dia.	1.25	1.22	1.19
261657EX	AA-700-CT	22	AA	1.2	700	Consumer Tip	1.90"L x 0.55"Dia.	1.37	1.25	.96
244515EX	AA-1000-CT	22	AA	1.2	1000	Consumer Tip	1.90"L x 0.55"Dia.	2.65	2.43	2.33
244507EX	AA-1000	21	AA	1.2	1000	Flat Top	1.90"L x 0.55"Dia.	2.65	2.43	2.33
244355EX	1/3A-250	23	1/3A	1.2	250	Flat Top	0.65"L x 0.65"Dia.	1.31	1.18	1.06
244371EX	2/3A-650	24	2/3A	1.2	650	Flat Top	1.10"L x 0.65"Dia.	1.79	1.65	1.60
244603EX	TY-2/3A-1100HD	24	2/3A	1.2	1100	Flat Top	1.10"L x 0.65"Dia.	1.99	1.81	1.71
244427EX	4/5A-1100	25	4/5A	1.2	1100	Flat Top	1.70"L x 0.65"Dia.	1.65	1.45	1.39
244363EX	1/3C-700	_	1/3C	1.2	700	Flat Top	0.87"L x 1.00"Dia.	2.59	2.33	2.10
244339EX	1/2C-800	26	1/2C	1.2	800	Flat Top	0.95"L x 1.00"Dia.	2.87	2.58	2.32
244574EX	SC-1500	27	Sub-C	1.2	1500	Flat Top	1.70"L x 0.89"Dia.	2.15	1.98	1.87
244953EX	SC-1500HT	27	Sub-C	1.2	1500	Flat Top, High Temp.	1.70"L x 0.89"Dia.	2.39	2.14	2.00
244654EX	SC-1900	27	Sub-C	1.2	1900	Flat Top	1.70"L x 0.89"Dia.	3.68	3.23	3.08
244671EX	C-2000	28	С	1.2	2000	Flat Top	1.90"L x 1.00"Dia.	4.25	3.96	3.92













Fig. 23

Fig. 21







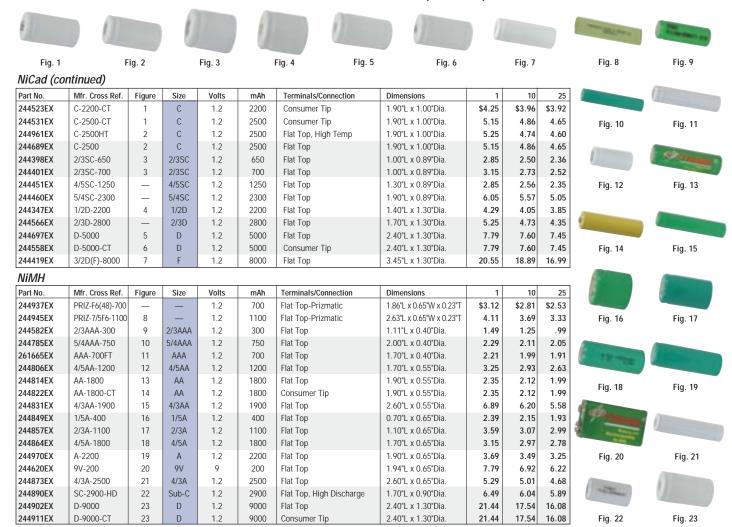


Fig. 25

Fig. 27 Fig. 28



#### NiCad and NiMH Batteries (continued)



#### DANTON Long-Lasting Rechargeable NiMH Batteries & Chargers

Why buy & throw away hundreds of batteries? Now you can reuse longer-lasting, money saving NiMH rechargeable batteries instead! They feature twice the power of NiCad batteries, so they're ideal for power-hungry devices like digital cameras and camcorders. The chargers below are specifically designed for NiMH batteries.



#### NIMH Batteries 231095EX 231087EX 231116EX 231124EX 231108EX

Part No.	Description 1	10
231095EX	2x AAA, 600mAh	\$6.25
231087EX	4x AA, 1600mAh	12.55
231116EX	2x C, 3000mAh	9.45
231124EX	2x D, 7000mAh	17.65
231108EX	1x "9V", 150mAh	7.95

#### NiMH Chargers

231141EX: Compact battery charger with 4 AA batteries 231132EX: Universal battery charger for

AAA, AA, C, D and "9V" cells (batteries not included) · Selector switch for NiCad or NiMH type batteries

- Recharge batteries in single or group
- · Automatic charging current selection for different size of batteries
- · Fast charging in the specified period with automatic switch for trickle charge
- LED lamp to indicate proper charging
   Built-in IC timer control

EED idiiip t	a manage proper and ging — Bank in retimer dentite.		
Part No.	Description 1	5	
231141EX	Compact AA charger\$19.95	\$17.95	
231132EX	Universal charger	17.95	

#### NiMH & NiCad Battery Charger

Charge your AA or AAA NiMH and AA NiCad batteries with this8-hour battery charger. Simply plug into a wall outlet. Red LED indicates charging and green LED indicates ready to use.



- · Charging bay allows 4AA or 4AAA batteries to be charged at the same time (only AA NiCAD)
- Output: 4AA 1.35V @ 250mA or 4AAA 1.35V @ 95mA
- Size: 2.8" x 2.4" x 4.6" Weight: 1.0 lb.

4.95	
	1.95

#### Compactly designed battery tester.

Simply lift the swivel arm of this battery tester, place your battery between the contacts and it will provide you a voltage measurement of your batteries. Tests AAA, AA, C, D, 9V, and bι

button ce	ll batteries.	
Part No.	Description	Price
239556EX	Compact battery tester	\$4.99





231141FX

231132EX

## COLOR CODE LEGEND... NEW SALE REFURBISHED CLOSEOUT

#### **Lead Acid Batteries**

- Sealed
- UL approved
- Rechargeable Two-year warranty





26/1022EX



264031EX







264065FX



264073FX

		-	LOTOTTEX	204022LX		ZOTOOTEX	2010171	LA 201007 LA	201	OUSEA		07027
Part	Product	Nominal			Cross Re	eference			Size		Pric	ing
Number	Number	Voltage	Amp-Hrs.	Panasonic	YUASA	Eagle Picher	Tempest	Terminal Size	(L" x W" x H")	Wt. (lbs.)	1	10
264014EX	TY-6-4.5	6	4.5	LCR6VP	NP4-6	CF16V4	TR-4-6	Quick Connect 0.187"	2.8 x 1.9 x 4.0	1.9	\$8.99	\$7.89
264022EX	TY-6-10	6	10.0	LCR6V10P	NP10-6	CFM6V10	TR10-6	Quick Connect 0.187"	5.9 x 2.0 x 3.9	4.6	14.45	12.97
264031EX	TY-12-2.3	12	2.3	LCR12V2.2P	NP2.3-12	CF12V1.5	TR2.3-12	Quick Connect 0.187"	7.0 x 1.3 x 2.4	2.1	15.39	14.59
264049EX	TY-12-4.5	12	4.5	LCR12V4PF	NP412	CF12V4	TR4-12	Quick Connect 0.187"	3.5 x 2.8 x 4.0	3.8	15.79	14.55
264057EX	TY-12-7	12	7.0	LCR12V7.2BP	NP712	CFM12V65	TR7.5-12	Quick Connect 0.187"	5.9 x 2.6 x 3.7	5.6	16.95	15.15
264065EX	TY-12-12	12	12.0	PS12120	_	CFM12V12	TR12-12	Quick Connect 0.187"	5.9 x 3.9 x 3.9	9.0	30.65	28.25
264073EX	TY-12-18	12	18.0	LCR12V17BP	NPG18-12	CF12V18	TR18-12	Quick Connect 0.472"	7.1 x 3.0 x 6.6	13.3	32.85	28.15

#### Battery Holders, Snaps and Clip

Eliminate battery retention problems in portable DC power applications and products.









Fig. 9





High-retention snaps are made from special materials that maintain retention properties longer than conventional snaps. They can be with leads, or attached to battery holders.						
Part No.	Mfr. Cross Ref.	Fig.	Cells	Connector	Sides	
216080EX	BH-321-2A	2	2-AA	Wires	Single	
216119EX	SBH-321-1AS	3	2-AA	Wires	Single	
216143EX	SBH-331-AS	4	3-AA	Wires	Single	
105857EX	*	8	4-AA	Wires	Single	
216178EX	BH-343-1A	6	4-AA	Wires	Dual	
21/10/57	CDII 241 1AC	0	4 4 4	Minon	Cimala	

Features 10 1 \$.69 \$.59 Cover/switch .79 .69 Cover/switch 99 79 Wires w/ conn. .89 .75 .75 .55 216186EX | SBH-341-1AS 4-AA Wires Sinale Cover & switch 1.09 .89 BH-382-B 216258EX 10 8-AA Snaps Dual 1.19 99 216311EX SBH-431-1AS .69 4 3-AAA Wires Single Cover & switch .79 216320EX BH-441-1A .89 5 4-AAA Wires Single .99 216354EX BH-221-A 2 2-C Wires Single 1.09 .99 216362EX BH-242-1A 7 4-C Wires Single 1.39 1.29 216389EX BH-121-1A 2-D Wires 2 Single 89 .75 216418EX BH-143-1A 4-D Wires Sinale 1.15 .89 5 216426EX BH-9V-A 1-9V Wires .79 Single .69

Fig. 8 9-Volt Battery Snaps and Clip

 Use with standard "9 volt" batteries · Fully insulated; nickel-plated brass contacts

· Leads are color-coded, stripped and pre-tinned

Snap: male outer dia. = 0.225

Fig.

2

3

3

Fia. 7

• Female inner dia.: 0.215" \* 10 piece minii

Battery holder clip

3", 26 AWG, 6 prong battery snap

6", 26 AWG, 6 prong battery snap

10", 26 AWG, 6 prong battery snap

6", 26 AWG, 6 prong battery snap

Description



Fig. 10

mum	Fig. 3	3	FI	g. 4	
	Dim	ensions	(in.)	Pric	cing
	L	W	Н	1	10
	1.0	.50	-	\$.25	\$.22
	.63	.71	1.2	.28	.23
	1.0	50		*	17

38535EX	2S2032	11	1-CR2032	PC Mount		
* Battery holder used in many personal computers						

#### **Fuses**

Part

Number

11279EX

105793EX

109153FX

101469EX

216451EX

#### 11/4" x 1/4" Standard Fuses

Fast Acting Fuses (250V) AGC/3AG Fuses



Coin Cell



Part No.	Amps	Manufacturer	10	100
69403EX	250mA	Various	\$.20	\$.18
10410EX	500mA	Various	20	.18
10372EX	1 amp	Various	20	.12
10381EX	2 amp	Various	20	.12
69438EX	3 amp	Various	20	.12
197544EX	4 amp	Various	22	.20
10401EX	5 amp	Various	22	.20
197552EX	6.3 amp	Various	22	.20
69462EX	10 amp	Various	25	.22
186301EX	16 amp	Various	25	.22

#### Slow Blow Fusos (2501/)

MDL/3AG Fuses					
Amps	Manufacturer	1	10		
1 amp	Various	. \$.71	\$.59		
2 amp	Various	54	.43		
3 amp	Various	54	.44		
5 amp	Various	54	.44		
10 amp	Various	74	.65		
	Amps 1 amp 2 amp 3 amp 5 amp	Amps Manufacturer  1 amp Various	Amps         Manufacturer         1           1 amp         Various         \$.71           2 amp         Various         .54           3 amp         Various         .54           5 amp         Various         .54		

#### 5mm x 20mm Minature Fuses

.49

Fast Acting (250V) GMA Fuses

.59

- · Recommended for new designs
- · Prepackaged: order in increments of 10 or 100

Part No.	Amps	Manufacturer	10	100
103886EX	250mA	Various	\$.20	\$.15
102040EX	500mA	Various	20	.15
103907EX	1 amp	Various	20	.15
103915EX	2 amp	Various	20	.15
103923EX	3 amp	Various	20	.15
103931EX	5 amp	Various	20	.15

#### Slow Blow Fuses (250V) GMA Fuses

· Prepackaged: order in increments of 10 or 100

Part No.	Amps	Mfr.	10	100
197501EX	500mA	Various	\$.29	\$.26
197464EX	1 amp	Various	29	.25
197472EX	2 amp	Various	35	.32
197481EX	3.15 amp	Various	35	.32
197499EX	5 amp	Various	35	.32

Fuse Holders @ www.Jameco.com

#### Fuse Clips

- Low profile Low contact resistance
- Withstands shock







.29

.34

.25

.30

Prepackaged: order in increments of 10 or 100

1.0

1.0

.50

.50

Part No.	Description 10	100
102859EX	5mm, front leads \$.12	\$.09
119280EX	5mm, side leads	.08
102841EX	1/4", front leads (10A)	.08

#### In-Line Fuse Holders

· Built-in spring ensures good fuse connection

11/4" x 1/4" standard · Vinyl covered wire with stranded copper center



Wire color: red; except for P/N 108783EX orange

		Wire	Body	Body		
Part No.	AWG	Lgths	Size(L)	Color	1	10
102867EX	20	3/3"	2.2"	White	\$.65	\$.58
151917EX	18	6/6"	2.4"	White	99	.85
108783EX	16	21/26"	2.2"	Black	99	.87
108791EX	14	19/25"	2.5"	Black	1.59	1.19

TIT

TII.



#### **Excell Rotary DIP Switches**

- · Gold plated contacts to ensure reliable, low resistance connection
- Fully sealed construction
- Terminals: PC pin leads
- Life: 10,000 cycles min.
- Material: 94V-0 grade, UL approved fire retardant plastic
- Ma. switching load rating: 25mA @ 24VDC

Op force: 500gf-cm max.





139635EX 139651EX

Part No.	Product No.	Position	Adjust	Code Type	W" x D" x H"	1	10
139635EX	ERD110RS(DRD10)	10	top	BCD	0.39 x 0.39 x 0.20	\$2.59	\$2.33
139651EX	ERD116RS	16	top	Hex	0.39 x 0.20 x 0.39	2.75	2.49

#### Magnetic Reed Switches

· Contact form: SPST · NO (normally open)



#### **DIP Switches**









38842FX 38818FX

- Switch contacts: SPST · Switches are numbered Molded construction
- 50VDC @ 100mA
- · Standard switches have raised lever
- · LP switches are flush to casing · Pre-tinned leads

#### Compatible Socket Chart, see website for Sockets

Switch	Socket	Switch	Socket	Switch	Socket
38818EX	51570EX	38826EX	37161EX	139002EX	51570EX
139011EX	37372EX	38842EX	37372EX	38797EX	38607EX

Part No.	Mfr. Cross Ref. No.*	Pos.	1	10
38818EX	206-4	4	\$.65	\$.55
139002EX	206-4LP	4	.79	.70
38826EX	206-6	6	.99	.89
38842EX	206-8	8	.89	.80
139011EX	206-8LP	8	.85	.76
38797EX	206-10	10	.95	.86

<sup>\*</sup> Manufacturer Cross Reference number and manufacturer may vary

#### **Rotary Switches**

See page 19

for knobs

- · Panel mount Make before break
- Solder lugs
- Layers: 1
- Contact rating: 30VDC @ 0.3A
- Insulation resistance:  $10M\Omega$  min.
- Contact resistance: 30mΩ
- Material: solid brass bushings, slotted aluminum shafts, plated frame, phenolic contact wafer (except for P/N 101565EX - plastic casing)
- Mounting hole diameter: 3/8<sup>i</sup>
- Lug size: 0.07" • Shaft size: 0.46" x 0.25" 101565EX: Shaft size: 1.16" x 0.25"

Includes: Washer and nut

Part	Mfr. Cross			Pricing	
Number	Ref. No.*	Poles	Position	1	10
101531EX	RS0261	1	12	\$1.29	\$1.10
101573EX	RS022	2	6	1.35	1.15
101565EX	RS023	3	4	1.95	1.59
101557EX	RS024	4	3	1.09	.93

<sup>\*</sup> Manufacturer Cross Reference number and manufacturer may vary

#### 12-Button Telephone Keypads

- · White plastic
- 8-pin .100" header
- 153488EX · Tactile type keypad
- · Contact rating: 12VDC @ 20mA
- Contact resistance: 200Ω max.
- · Life test: 1,000,000 cycles per key
- Size: 2.8"L x 2.2"W x 0.6"H

Part No.	Description 1	10
190561EX	Numeric keypad\$8.75	\$7.45
153488EX	Alpha numeric keypad 9.49	8.55

#### 16-Button Numeric Keypad

- 4 x 4 matrix keypad
- · 8-position solder pad
- · Contact rating:
- 24VDC @ 20mA
- Contact resistance: 200Ω max.
- Life test: 1,000,000 life cycles per key
- Size: 3.0"L x 2.8"W x 0.6"H

Part No.	Description	1	10
169244EX	Numeric keypad	\$7.95	\$6.95

# 16-Button Indoor/Outdoor Keypads

123451

196171FX

7 1 1 1

152063EX

87880

- 9-pin 0.100" headers
- Fully sealed snap-dome contact
- For indoor

101573EX

- or outdoor use Contact rating:
- 24VDC @ 10mA resistive
- Life test: 3.000.000 cycles per key
- Compatible with MOS, TTL and DTL ( $10\Omega$  max.)
- Recommended connector: P/N 103190EX header and 100765EX pin
- Size (housing): 4.7"W x 1.7"H x 0.4"T
- \* Prepackaged: please order in increments of 10

Description 1	10
2x8 matrix keypad \$16.95	\$15.29
4x4 matrix keypad 14.95	13.49
Header housing (10-pin)42	.39
Header pin (10 per pack) *	.11
	2x8 matrix keypad       \$16.95         4x4 matrix keypad       14.95         Header housing (10-pin)       .42

#### SPST Round Keylock Switches

- Used in computer & other security systems
- Key removable from 2 positions
   Two keys

Mounting hole = 0.75" except P/N 106649EX = 0.5"

196648EX: all keys are alike

Includes: Mounting nut





105831EX/196648EX

	Mfr. Cross Ref. No.	No. Flat, Dia.	Length	Terminal	Voltage/Current	Prio	ing 10
106649EX	KS4B	2, .21"	.55"	Barrel	125VAC/3A	\$3.59	\$3.29
105831EX	KS3B	2, .66"	1.48"	.25" quick connect	125VAC/6A	3.99	3.59
196648EX	3313E-M	2, .66"	1.48"	.25" quick connect	125VAC/6A	4.49	3.99

#### Over 99% of our products are in stock!

Place your order by 6PM EST for same business day shipment. 1-800-831-4242

www.Jameco.com



#### **Click Action Basic Precision Switches**

- 3 terminals: common: normal closed: normal open
- · Dielectric strength: 1000VAC 50-60Hz for 1 min. • Insulation resistance:  $100M\Omega$  min. (@ 500VDC)
- Type: NO-NC-common





159599FX



159572FX



159581EX

Part	Product			Contact	Service	Life			Pricii	ng
Number	Number	Description	Rating	Resistance (initial)	Mechanically	Electrically	Terminals Type	Agency Approval	1	10
159599EX	SS0505A	Subminiature	5A @ 125VAC	30mΩ max.	10 million	200,000	.127" quick disconnect	UL	\$3.25	\$2.92
159572EX	VS10N051C	Micro (T90S1D12-12)	10A @ 250VAC	15mΩ max.	10 million	100,000	.183" quick disconnect	UL/CSA	2.89	2.54
159581EX	VS10N021C2	Micro	10A @ 250VAC	15mΩ max.	10 million	100,000	.183" quick disconnect	UL/CSA	2.45	2.25





#### Miniature Toggle Switches

· Mounting hole diameter: 1/4" Includes: Mounting hardware







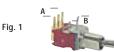


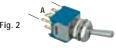


Total   Tota														
21936EX   JMT123   3   3   SPDT on-on   .52 x .32 x .38     .185     5 @ 125 & 2 @ 250   Solder lugs   Round   1.15   1.05	Part No.	Mfr. Cross Ref. No.	Fig.	Pins	Type () Momentary	Size (L" x W" x D")	Lead Sp	acing (A	"/B"/C")	Contact Rating (A @ VAC)	Lead Type	Lever Type	1	10
21910EX   JMT121   3   3   SPDT on-off-on   .52 x .32 x .38   — .185   —   5 @ 125 & 2 @ 250   Solder lugs   Round   1.35   1.25	76523EX	JMT113	1	2	SPST on-off	.52 x .32 x .38	_	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	\$1.15	\$1.03
22832EX         LFH123         3         3         SPDT on-on         .52 x .28 x .36         —         .185         —         5 @ 125 & 2 @ 250         Solder lugs         Flat         1.15         1.05           75854EX         SWM132         3         3         SPDT on-on         .52 x .32 x .38         —         .185         —         6 @ 125 & 3 @ 250         Solder lugs         Round         1.29         1.16           75889EX         SWM129         3         3         SPDT on-on         .52 x .32 x .38         —         .185         —         6 @ 125 & 3 @ 250         Solder lugs         Round         1.29         1.16           26331EX         MPC123         3         3         SPDT on-on         .52 x .32 x .37         —         .185         —         6 @ 125 & 3 @ 250         PC         Round         1.39         1.25           26315EX         MPC121         3         3         SPDT on-on         .52 x .32 x .38         —         .185         —         5 @ 125 & 2 @ 250         PC         Round         1.29         1.19           71597EX         SWM148         4         3         SPDT on-on         .52 x .32 x .38         —         .185         .20         5 @ 125 & 2 @ 250         PC righ	21936EX	JMT123	3	3	SPDT on-on	.52 x .32 x .38	_	.185	_	5 @ 125 & 2 @ 250	Solder lugs	Round	1.15	1.03
75854EX         SWM132         3         3         SPDT on-on         .52 x .32 x .38         —         .185         —         6 @ 125 & 3 @ 250         Solder lugs         Round         1.29         1.16           75889EX         SWM129         3         3         SPDT (on)-off-(on)         .52 x .32 x .38         —         .185         —         6 @ 125 & 3 @ 250         Solder lugs         Round         1.99         1.88           26331EX         MPC123         3         3         SPDT on-on         .52 x .32 x .37         —         .185         —         6 @ 125 & 3 @ 250         PC         Round         1.39         1.25           26315EX         MPC121         3         3         SPDT on-on         .52 x .32 x .37         —         .185         —         5 @ 125 & 2 @ 250         PC         Round         1.29         1.19           71597EX         SWM148         4         3         SPDT on-on         .52 x .32 x .38         —         .185         .20         5 @ 125 & 2 @ 250         PC right angle         Round         1.49         1.38           75871EX         SWM145         5         3         SPDT on-on         .52 x .52 x .38         .20         .185         .20         6 @ 125 & 3 @ 250	21910EX	JMT121	3	3	SPDT on-off-on	.52 x .32 x .38	_	.185	_	5 @ 125 & 2 @ 250	Solder lugs	Round	1.35	1.25
75889EX         SWM129         3         3         SPDT (on)-off-(on)         .52 x .32 x .38         —         .185         —         6 @ 125 & 3 @ 250         Solder lugs         Round         1.99         1.88           26331EX         MPC123         3         3         SPDT on-on         .52 x .32 x .37         —         .185         —         6 @ 125 & 3 @ 250         PC         Round         1.39         1.25           26315EX         MPC121         3         3         SPDT on-off-on         .52 x .32 x .37         —         .185         —         5 @ 125 & 2 @ 250         PC         Round         1.29         1.19           71597EX         SWM148         4         3         SPDT on-on         .52 x .32 x .38         —         .185         .20         5 @ 125 & 2 @ 250         PC right angle         Round         1.19         1.09           75871EX         SWM145         5         3         SPDT on-on         .52 x .32 x .38         —         .185         .20         6 @ 125 & 3 @ 250         PC right angle         Round         1.49         1.38           22841EX         LFH221         2         6         DPDT on-off-on         .52 x .52 x .38         .20         .185         —         3 @ 125 & 1 @ 2	22832EX	LFH123	3	3	SPDT on-on	.52 x .28 x .36	—	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Flat	1.15	1.05
26331EX         MPC123         3         3         SPDT on-on         .52 x .32 x .37         —         .185         —         6 @ 125 & 3 @ 250         PC         Round         1.39         1.25           26315EX         MPC121         3         3         SPDT on-off-on         .52 x .32 x .37         —         .185         —         5 @ 125 & 2 @ 250         PC         Round         1.29         1.19           71597EX         SWM148         4         3         SPDT on-on         .52 x .32 x .38         —         .185         .20         5 @ 125 & 2 @ 250         PC right angle         Round         1.19         1.00           75871EX         SWM145         5         3         SPDT on-on         .52 x .32 x .38         —         .185         .20         6 @ 125 & 3 @ 250         PC right angle         Round         1.49         1.38           22841EX         LFH221         2         6         DPDT on-off-on         .52 x .52 x .38         .20         .185         —         3 @ 125 & 1 @ 250         Solder lugs         Flat         1.45         1.38           21979EX         JMT223         2         6         DPDT on-on         .52 x .52 x .38         .20         .185         —         5 @ 125 & 2 @ 250	75854EX	SWM132	3	3	SPDT on-on	.52 x .32 x .38	_	.185	_	6 @ 125 & 3 @ 250	Solder lugs	Round	1.29	1.16
26315EX         MPC121         3         3         SPDT on-off-on         .52 x .32 x .37         —         .185         —         5 @ 125 & 2 @ 250         PC         Round         1.29         1.15           71597EX         SWM148         4         3         SPDT on-on         .52 x .32 x .38         —         .185         .20         5 @ 125 & 2 @ 250         PC right angle         Round         1.19         1.00           75871EX         SWM145         5         3         SPDT on-on         .52 x .32 x .38         —         .185         .20         6 @ 125 & 3 @ 250         PC right angle         Round         1.49         1.38           22841EX         LFH221         2         6         DPDT on-off-on         .52 x .52 x .38         .20         .185         —         3 @ 125 & 1 @ 250         Solder lugs         Flat         1.45         1.38           21979EX         JMT223         2         6         DPDT on-on         .52 x .52 x .38         .20         .185         —         5 @ 125 & 2 @ 250         Solder lugs         Round         1.49         1.29           22859EX         LFH223         2         6         DPDT on-on         .52 x .52 x .38         .20         .185         —         5 @ 125 & 2	75889EX	SWM129	3	3	SPDT (on)-off-(on)	.52 x .32 x .38	_	.185	_	6 @ 125 & 3 @ 250	Solder lugs	Round	1.99	1.85
77597EX         SWM148         4         3         SPDT on-on         .52 x .32 x .38         —         .185         .20         5 @ 125 & 2 @ 250         PC right angle         Round         1.19         1.00           75871EX         SWM145         5         3         SPDT on-on         .52 x .32 x .38         —         .185         .20         6 @ 125 & 3 @ 250         PC right angle         Round         1.49         1.38           22841EX         LFH221         2         6         DPDT on-off-on         .52 x .52 x .38         .20         .185         —         3 @ 125 & 1 @ 250         Solder lugs         Flat         1.45         1.38           21979EX         JMT223         2         6         DPDT on-on         .52 x .52 x .38         .20         .185         —         5 @ 125 & 2 @ 250         Solder lugs         Round         1.49         1.29           22859EX         LFH223         2         6         DPDT on-on         .52 x .52 x .38         .20         .185         —         5 @ 125 & 2 @ 250         Solder lugs         Round         1.49         1.38           75900EX         SWM133         2         6         DPDT on-on         .52 x .52 x .38         .20         .185         —         6 @	26331EX	MPC123	3	3	SPDT on-on	.52 x .32 x .37	_	.185	_	6 @ 125 & 3 @ 250	PC	Round	1.39	1.25
75871EX         SWM145         5         3         SPDT on-on         .52 x .32 x .38         —         .185         .20         6 @ 125 & 3 @ 250         PC right angle         Round         1.49         1.38           22841EX         LFH221         2         6         DPDT on-off-on         .52 x .52 x .38         .20         .185         —         3 @ 125 & 1 @ 250         Solder lugs         Flat         1.45         1.38           21979EX         JMT223         2         6         DPDT on-on         .52 x .52 x .38         .20         .185         —         5 @ 125 & 2 @ 250         Solder lugs         Round         1.49         1.29           22859EX         LFH223         2         6         DPDT on-on         .52 x .52 x .38         .20         .185         —         5 @ 125 & 2 @ 250         Solder lugs         Round         1.49         1.29           75900EX         SWM133         2         6         DPDT on-on         .52 x .52 x .38         .20         .185         —         6 @ 125 & 3 @ 250         Solder lugs         Round         1.49         1.38           21952EX         JMT221         2         6         DPDT on-off-on         .52 x .52 x .38         .20         .185         —         6 @	26315EX	MPC121	3	3	SPDT on-off-on	.52 x .32 x .37	_	.185	_	5 @ 125 & 2 @ 250	PC	Round	1.29	1.19
22841EX         LFH221         2         6         DPDT on-off-on         .52 x .52 x .38         .20         .185         —         3 @ 125 & 1 @ 250         Solder lugs         Flat         1.45         1.35           21979EX         JMT223         2         6         DPDT on-on         .52 x .52 x .38         .20         .185         —         5 @ 125 & 2 @ 250         Solder lugs         Round         1.49         1.29           22859EX         LFH223         2         6         DPDT on-on         .52 x .52 x .38         .20         .185         —         5 @ 125 & 2 @ 250         Solder lugs         Round         1.49         1.29           75900EX         SWM133         2         6         DPDT on-on         .52 x .52 x .38         .20         .185         —         6 @ 125 & 3 @ 250         Solder lugs         Round         1.49         1.38           21952EX         JMT221         2         6         DPDT on-off-on         .52 x .52 x .38         .20         .185         —         6 @ 125 & 3 @ 250         Solder lugs         Round         1.29         1.16           75951EX         SWM130         2         6         DPDT (on)-off-(on)         .52 x .52 x .38         .20         .185         — <t< th=""><th>71597EX</th><th>SWM148</th><th>4</th><th>3</th><th>SPDT on-on</th><th>.52 x .32 x .38</th><th>_</th><th>.185</th><th>.20</th><th>5 @ 125 &amp; 2 @ 250</th><th>PC right angle</th><th>Round</th><th>1.19</th><th>1.09</th></t<>	71597EX	SWM148	4	3	SPDT on-on	.52 x .32 x .38	_	.185	.20	5 @ 125 & 2 @ 250	PC right angle	Round	1.19	1.09
21979EX         JMT223         2         6         DPDT on-on         .52 x .52 x .38         .20         .185         —         5 @ 125 & 2 @ 250         Solder lugs         Round         1.49         1.29           22859EX         LFH223         2         6         DPDT on-on         .52 x .52 x .38         .20         .185         —         5 @ 125 & 2 @ 250         Solder lugs         Flat         1.29         1.19           75900EX         SWM133         2         6         DPDT on-on         .52 x .52 x .38         .20         .185         —         6 @ 125 & 3 @ 250         Solder lugs         Round         1.49         1.38           21952EX         JMT221         2         6         DPDT on-off-on         .52 x .52 x .38         .20         .185         —         6 @ 125 & 3 @ 250         Solder lugs         Round         1.49         1.38           75951EX         SWM130         2         6         DPDT (on)-off-(on)         .52 x .52 x .38         .20         .185         —         6 @ 125 & 3 @ 250         Solder lugs         Round         1.49         1.38           75951EX         SWM130         2         6         DPDT (on)-off-(on)         .52 x .52 x .38         .20         .185         —	75871EX	SWM145	5	3	SPDT on-on	.52 x .32 x .38	_	.185	.20	6 @ 125 & 3 @ 250	PC right angle	Round	1.49	1.35
22859EX         LFH223         2         6         DPDT on-on         .52 x .52 x .38         .20         .185         —         5 @ 125 & 2 @ 250         Solder lugs         Flat         1.29         1.15           75900EX         SWM133         2         6         DPDT on-on         .52 x .52 x .38         .20         .185         —         6 @ 125 & 3 @ 250         Solder lugs         Round         1.49         1.38           21952EX         JMT221         2         6         DPDT on-off-on         .52 x .52 x .38         .20         .185         —         6 @ 125 & 3 @ 250         Solder lugs         Round         1.29         1.16           75951EX         SWM130         2         6         DPDT (on)-off-(on)         .52 x .52 x .38         .20         .185         —         6 @ 125 & 3 @ 250         Solder lugs         Round         1.29         1.16           75951EX         SWM130         2         6         DPDT (on)-off-(on)         .52 x .52 x .38         .20         .185         —         6 @ 125 & 3 @ 250         Solder lugs         Round         1.49         1.38	22841EX	LFH221	2	6	DPDT on-off-on	.52 x .52 x .38	.20	.185	_	3 @ 125 & 1 @ 250	Solder lugs	Flat	1.45	1.35
75900EX         SWM133         2         6         DPDT on-on on on-off-on on-off-on off-on on-off-on off-on off-on on-off-on off-on	21979EX	JMT223	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Round	1.49	1.29
21952EX       JMT221       2       6       DPDT on-off-on JPDT on-off-on JPDT on-off-(on)       .52 x .52 x .38       .20       .185       —       6 @ 125 & 3 @ 250       Solder lugs Solder lugs Round       Round       1.29       1.16         75951EX       SWM130       2       6       DPDT (on)-off-(on)       .52 x .52 x .38       .20       .185       —       6 @ 125 & 3 @ 250       Solder lugs Round       1.49       1.38	22859EX	LFH223	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	_	5 @ 125 & 2 @ 250	Solder lugs	Flat	1.29	1.19
75951EX SWM130 2 6 DPDT (on)-off-(on) .52 x .52 x .38 .20 .185 — 6 @ 125 & 3 @ 250 Solder lugs Round 1.49 1.38	75900EX	SWM133	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.49	1.35
	21952EX	JMT221	2	6	DPDT on-off-on	.52 x .52 x .38	.20	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.29	1.16
26358EX MPC221 2 6 DPDT on-off-on .52 x .52 x .38 .20 .185 — 5 @ 125 & 2 @ 250 PC Round 1.29 1.16	75951EX	SWM130	2	6	DPDT (on)-off-(on)	.52 x .52 x .38	.20	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.49	1.35
	26358EX	MPC221	2	6	DPDT on-off-on	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	PC	Round	1.29	1.16

#### **Subminiature Toggle Switches**

- Mounting hole diameter: 7/32"
- Pre-tinned leads
- Metal construction **Includes:** Mounting hardware







Wiotai Goristi	dottori moldaos. Modriti	ig marav	ruio		-							_
Part No.	Mfr. Cross Ref. No.	Fig.	Pins	Туре	Size (L" x W" x D")	Lead Spa	cing (A"/B")	Contact Rating	Lead Type	Lever Type	1	10
106067EX	SWP124	1	3	SPDT on-on	.25 x .33 x .40	.20	.10	30mA @ 5VDC	PC right angle	Round	\$1.99	\$1.83
72160EX	SW1501	2	2	SPST on-off	.33 x .21 x .33	.10	_	1.5A @ 250VAC	Solder lugs	Round	1.29	1.24
75969EX	SWM136	2	3	SPDT on-on	.33 x .21 x .33	.10	_	3.0A @ 125VAC	Solder lugs	Round	1.55	1.44
72557EX	SW1502	2	3	SPDT on-off-on	.33 x .21 x .33	.10	_	1.5A @ 250VAC	Solder lugs	Round	1.35	1.25
138907EX	SW1503	2	6	DPDT on-off-on	.36 x .37 x .33	.10	_	3.0A @ 120VAC	Solder lugs	Round	1.29	1.05
75977EX	SWM137	3	6	DPDT on-on	.33 x .37 x .33	.17	.10	1.5A @ 250VAC	Solder lugs	Round	1.29	1.05

#### **Pushbutton Switches**

- Pins: 2 Normally open & closed configurations
- · Momentary action pushbutton switches

Includes: Mounting hardware









Fig. 4

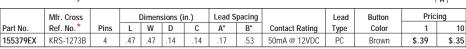




Part No.	Mfr. Cross Ref. No.	Fig.	Mount Hole Dia.	Type () Momentary	Size (L" x W" x D")	Lead Space	ing (A"/B")	Contact Rating	Terminal Type	Button Color	1	10
26622EX	MS102	1	1/4"	SPST off-(on)	.65 (D) x 1.10 (E)	_	.14	3A @ 125VAC	Solder lugs	Red	\$.55	\$.50
26649EX	MS103	1	1/4"	SPST on-(off)	.65 (D) x 1.10 (E)	_	.17	3A @ 125VAC	Solder lugs	Black	.55	.50
71642EX	SWB210	2	7/32"	SPST off-(on)	.33 x .36 x .20	.20	.20	1A @ 120VAC	PC right angle	Black	2.19	1.99
121304EX	CK8121	3	1/4"	SPDT on-(on)	.52 x .27 x .38	_	.185	5A @ 125VAC	Solder lugs	White	3.59	3.25
164638EX	MS3120R	4	_	SPST off-(on)	1.1" L x .31" Dia.	.175"	_	3A @ 125VAC	Solder terminal	Red	1.32	1.19
106112EX	DS412R	5	_	SPST off-(on)	.63" L x .66" Dia.	.275"	_	3A @ 125VAC	Solder lugs	Red	1.19	.99
171774EX	AV191003C900	6	3/4"	SPST off-(on)	1.20" L x 0.87" Dia.	0.37"	_	2A @ 48VDC	Screw	Silver	11.95	10.84

#### **Tactile Switch**

- · Bounce time: 10 msec.
- SPST momentary ON • Contact resistance:  $100m\Omega$









• DPST

· Contacts rated at 250VAC

· UL/CSA approved

• Size: 0.9"L x 1.2"W x 1.4"D

Description Current 10 100 PC rocker 10A .... **\$2.95** 

#### **Full-Size Toggle Switches**

- Panel mount Mounting hole diameter: 1/2" Full-size round lever
- Medium duty
   Keyed plate indicates switch position

Includes: Mounting hardware and on/off plate











	Mfr. Cross				Dimensions	Lead Spacing		ng	Contact Rating		Lever	Pric	ing
Part No.	Ref. No.	Fig.	Pins	Туре	L" x W" x D"	A"	В"	C"	(A @ VAC)	Lead Type	Туре	1	10
76241EX	SWM128	1	2	SPST on-off	1.00 x .56 x .52	.23	_	_	4 @ 125 & 2 @ 250	Solder lugs	Round	\$1.49	\$1.29
158078EX	JKN3CC	1	6	DPDT on-on	1.19 x .76 x .73	.44	.59	.44	10 @ 125 & 6 @ 250	Screw lugs	Round	1.75	1.59
76232EX	SWM125	2	2	SPST on-off	1.00 x .53 x .51	_	_	_	6 @ 125 & 3 @ 250	6" lead wire	Round	1.75	1.59



#### DC/AC and DC/DC Solid State Relays

- · Screw terminal with hardware
- · Photo isolation
- · Metal mounting base
- Manufacturer may vary









Fig. 3



Part No.	Product No.	Mfr.	Control Voltage	Туре	Contact Style	Contact Voltage	Contact Curr.	Pins	Fig.	Terminal Type	Agency Approval	Size (L" x W" x H")	1	10
	Solid State Relays DC/AC Type													
162341EX	ESR51024-010 †	Excel	3-32VDC	DC/AC	SPST	240VAC	10A	4	1	Screw Terminal	UL	2.3 x 1.7 x 1.1	\$15.95	\$14.39
162368EX	ESR51024-025 †	Excel	3-32VDC	DC/AC	SPST	240VAC	25A	4	1	Screw Terminal	UL	2.3 x 1.7 x 1.1	21.95	19.79
105081EX	615-8500 🕊	Teledyne	3-32VDC	DC/AC	SPST	250VAC	10A	4	2	Screw Terminal	UL	2.3 x 1.7 x 1.1	15.99	14.39
164988EX	S101S02	Sharp	1.2VDC@20mA	DC/AC	_	125VAC	1.5A	4	3	Solder Lead	UL/CSA	0.9 x .16 x .63	3.95	3.49
164996EX	S202TA1	Sharp	1.2VDC@20mA	DC/AC	_	200VAC	2.0A	4	3	Solder Lead	UL/CSA	0.9 x .16 x .63	4.95	4.49
					So	lid State Rela	y DC/DC Ty	oe -						
172591EX	KF0602D	Kyoto	3-32VDC	DC/DC	SPST	60VDC	2A	4	4	Solder Lead	_	1.4 x 0.3 x 0.9	\$9.95	\$8.95
175222EX	KF0604D	Kyoto	3-32VDC	DC/DC	SPST	60VDC	4A	4	4	Solder Lead	_	1.5 x 0.3 x 0.9	11.95	11.25

<sup>†</sup> Zero crossing % Pull

#### **DIP Relays**

- · Logic control levels
- Moisture resistant
- · Compatible with IC sockets
- · Long life with reliable operation
- · Compact design/ construction
- Excellent for PCB applications







99901EX

136549EX

**MAromat** 

**11** 





16

Schematic 1

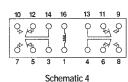
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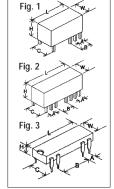
Schematic 3

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Schematic 2





Part	Product		Contact	Contact	Coil	Coil		Contact		Jameco		Size	Leads	Prici	ing
Number	Number	Manufacturer	Schem.	Form	Voltage	Ohms	Contact Voltage	Current	Pins	Socket	Fig.	L x W x H (in.)	A x B x C (in.)	1	10
106462EX	201A05	Excel Cell Elect.	1	SPST-NO	5VDC	500	100VDC	0.5A	8	37161EX	3	.78 x .25 x .20	.10 x .40 x .30	\$2.15	\$1.81
138430EX	2D1A05	Excel Cell Elect.	2	SPST-NO	5VDC	500	100VDC	0.5A	8	37161EX	3	.77 x .30 x .22	.10 x .40 x .30	2.29	1.95
106471EX	201A12	Excel Cell Elect.	1	SPST-NO	12VDC	1000	100VDC	0.5A	8	37161EX	3	.78 x .25 x .20	.10 x .40 x .30	2.29	1.95
173913EX	AZ831-2C-5DSE	American Zettler	3	DPDT	5VDC	125	125VAC/100VDC	.5A/1.25A	8	37401EX	1	.79 x .38 x .44	.18 x .28 x .29	2.35	2.15
139977EX	RSB5S	Shin Mei	3	DPDT	5VDC	125	120VAC/30VDC	1A/2A	8	37372EX	1	.79 x .39 x .37	.20 x .40 x .30	2.49	2.25
99311EX	DS2Y-S-DC12V*	Aromat (NAIS)	3	DPDT	12VDC	720	110VAC/30VDC	.3A/1A	8	37372EX	1	.79 x .40 x .43	.20 x .40 x .30	2.49	2.31
99901EX	LX200D00	Clare	3	DPDT	12VDC	720	125VAC/100VDC	2A	8	37372EX	1	.79 x .40 x .30	.20 x .40 x .30	6.95	6.25
99320EX	LM12E00*	NEC	3	DPDT	24VDC	1110	125VAC/100VDC	2A	8	37372EX	1	.79 x .40 x .43	.20 x .40 x .30	2.95	2.69
136549EX	DS4E-M-DC5V*	Aromat	4	4PDT	5VDC	62.5	125VAC/30VDC	.6A/2A	14	112299EX	2	1.40 x .40 x .36	.20 x .30 x .30	5.49	4.95

<sup>\*</sup> Manufacturer and Manaufacturer Cross Ref. number may vary

#### **Potter & Brumfield Type Plastic Enclosed Construction Relay**

- Dielectric strength: 500VDC (between contact & coil)
- Operating temperature: -35°C to +85°C
- Contact current: 40A
- Coil voltage: 12VDC
  Normally open (NO), normally closed (NC)
- Terminal type: quick connect
  Dimensions: 1.1"L x 1.1"W x 1.0"H







VF4 Type Relays

Part No.	Mfr. Cross Ref. No.	P&B Cross Ref.	Contact Form	Coil Ohms	Schematic	Contact Voltage	Pins	1	10
171441EX	961A-1A12D	VF411F11	SPST-NO	90	2	14VDC	4	\$2.35	\$2.20
171432EX	961A-1C-12DM	VF481F11	SPDT	90	1	12VDC	5	2.99	2.69
148582EX	LD12F	VF485F11	SPDT	78	1	12VDC	5	2.49	2.25

#### VF4 Type Socket with Coil Diode

- For use with P/N 148582EX (above)
- Contact voltage/current: 12V/20A
- 12 AWG: 2 black and 1 blue wire
- 7.5" wire

• 18 AWG: 1	black and 1 red wire	Diode coil suppression	
Part No.	Mfr. Cross Ref. No.	Description 1	10
170624EX	RSD03	Relay socket with coil diode (for P/N 148582EX, above) \$2.35	\$2.15

# 59 More @ www.Jameco.com



Our complete selection of Relays and Relay Sockets is at www.Jameco.com.



#### General Purpose Relays

• DPDT • 8-pins

Pin Type Terminals - Series 78

Contact voltage: 240VAC

Pin Type Terminals - Series 250

· Contact rating: 120/240VAC, 28VDC @ 10Ă

· Ambient temp. operating: -10°C to +50°C

Size: 1.4"L x 1.4"W x 2.7"H



Part No.	Mfr. Cross Ref. No.	P&B Cross Ref.	Coil Voltage	1			
Series 78							
172718EX	SCL12DPDT	K10-11D15-R	12VDC	\$4.99	\$4.49		
		Series 250					
139766EX BTA1-2C-12VDC R02-11D10-12 12VDC \$9.49 \$8							
<b>139740EX</b> BTA1-2C-120VAC		R02-11A10-120	120VAC	9.95	8.79		

#### Series 250 Sockets

Part No.	Voltage	Current	Pins	Size	1	10
141145EX	250VAC	20 amps	8	2.0"L x 1.6"W x 0.8"H	\$3.99	\$3.65
141153EX	250VAC	20 amps	11	2.0"L x 1.7"W x 1.2"H	5.19	4.85

#### R

#### **Rayex General Purpose Relays**

#### Potter and Brumfield Type LB2 Series

- DPDT 8-pins
- Contact rating: 240VAC/30VDC @ 12A
  Mechanical life: 10,000,000 operations
- Electrical life: 100,000 operations min. at rated load



Part Product		P & B Cross	Coil	Pricing		
Number	Number	Reference	Voltage		10	
172718EX	SCL12DPDT	K10-11D15-12	12VDC	\$4.99	\$4.49	

#### Rayex LB2 Socket

DIN rail snap socket for LB2 relays

	1				
Part Product		P & B Cross		Pric	ing
Number	Number	Reference	Pins	1	10
175530EX	PTF08AA	27E895	8	\$5.95	\$5.39





#### More @ www.Jameco.com

See our website for a selection of Power PCB Relays.

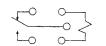


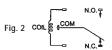
#### Small High-Current PC Mount Relays

An inexpensive means of switching loads up to 30 amps. While these small, low-cost relays are designed primarily for the appliance industry and the heating, air conditioning and ventilation markets, they are also well suited for automotive load management and other applications.

- Meets UL class F insulation standard
- Mechanical life expectancy is 10 million operations
- Electrical life expectancy is 100,000 operations at rated loads
- Dielectric strength: 1500Vrms (between contact and coil)
- 144186EX: For use with universal relay card (P/N 128910EX, pg 88)

#### More @ www.Jameco.com Log on today!





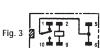


Fig. 3	4
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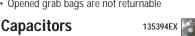
3.0 .....**\$12.95** 

\$11.49

	Mfr. Cross		Potter & Brumfield		Contact	Coil	Coil					Pric	ing
Part No.	Ref. No.	Manufacturer	Cross Reference	Fig.	Form	Voltage	(Ohms)	Contact Voltage	Contact Current	Pins	L x W x H (in.)	1	10
187240EX	G5V-1-DC5	Omron	_	3C	SPDT	5VDC	166.7	125VAC/24VDC	.5A/1A	6	.50 x .30 x .40	\$2.05	\$1.79
172937EX	JS1-12V	Nais (Aromat)	T72M5D121-12	2B	SPDT	12VDC	400	125VAC/24VDC	10A/5A	5	.85 x .62 x .63	1.09	.99
144186EX	JZC-22F	Velleman	VR15M121C	1A	SPDT	12VDC	337	120VAC/28VDC	15A	5	.80 x .64 x .80	3.79	3.39

#### Component Grab Bags

- · Use our 20-drawer cabinet with labels to store your components, P/N 81701EX, pg 45
- Opened grab bags are not returnable





Cabinet - 81701EX



Part No.	Cross Ref. No.	Description		Wt. (lbs.)	1	10		
135394EX	GB102LB*		d (300 pcs) electrolytic kial, snap (photo above)	1.5 <b>\$1</b>	2.95	\$11.49		
17945EX	GB103		antalum capacitors and solid tubular)	0.1	9.95	8.95		
Intograted Circuits								

integrated Circuits 135280EX						
Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	
135280EX	GB108LB*	1 lb. (400 pcs) asst. 7400, 74LS00 series (74, 74C, 74F, 74S, 74ALS, 74HC, 74HCT		¢16 05	¢1/ 05	
145242EX	GB109LB*	2 lb. (300 pcs) asst. linear series (LM300, 500, 700, 7800, 7900 reg.)	2.0	-		

LEDS		18041EX	1			
Part No.	Cross Ref. No.	Description	No. of the last	Wt. (lbs.)	1	10
18041EX	GB110		100 assorted sizes & colored LEDs			
		(T1/T1 <sup>3</sup> / <sub>4</sub> round and re	ctangular)	0.1	\$6.95	\$6.29
18323EX	GB186	500 asst. sizes #1804	1EX LEDs	0.3	19.95	17.95
135271EX	GB110LB*	1 lb. (1900 pcs) asst.	#18041EX LEDs	1.0	44.95	40.95

#### 1/4W Resistors

Don't No	Cases Def No	Description	M# (lbs.)	- 1	10
Part No.	Cross Ref. No.	Description	Wt. (lbs.)	<u> </u>	10
135351EX	GB116LB*	1 lb. (2000 pcs) asst. 1/4W resistors	1.0	\$14.95	\$13.49

\*LB grab bag quantities are approximate

#### **Hardware Assortment**

• 6-32 • 8-32 • Screws 2-56 • 4-40

 Nuts
 Washers
 Steel
 Brass
 Lock Washers
 Aluminum
 Plastic Wt. (lbs.) Part No. Cross Ref. No. Description

GB149LB\* 3 lbs. (1400 pcs) assorted 171635FX

types of screws

#### Schwab's School Selection

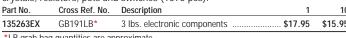
A selection of Jameco's nine most popular Grab Bags, all individually bagged. North Dakota Engineer, Loren Schwab, recommended this selection of products as a standard item. He also recommends a 20-drawer component cabinet with labels (81701EX photo above) for storage.

Includes: Ceramic and electrolytic capacitors, diodes, transistors, potentiometers, switches, LEDs, 1/4W resistors, spacers and standoffs.

l	Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
l	163213EX	GB197	Schwab's School Selection	3.3 <b>\$39</b>	.95	\$34.9
l	81701EX	CAB20	20-drawer component cabinet	4.7 15	.95	13.9

#### Surprise Component Grab Bag

Axial and radial electrolytics, monolithic, dipped silver mica and mylar capacitors, connectors, sockets, thermistors, LEDs, resistor networks, diodes, ICs, standoffs, transistors, oscillator/resonators, inductors, crystals, resistors, pots and switches (1075 pcs).



\*LB grab bag quantities are approximate



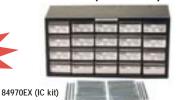
#### Kits include the Most Popular Components and a Cabinet with extra drawers for your Customized Expansion



84970EX

84953EX

130403EX









Each Kit includes a 20-Drawer Component Cabinet (81701EX), 20 clear plastic drawers (85454EX), 20 clear dividers (85446EX), 30 adhesive labels for drawers to identify parts in kit, and all the Electronic Components listed in each kit.

• Cabinet size: 6.0"L x 15.0"W x 7.9"H • Drawer size: 5.5"L x 2.7"W x 1.5"H • Weight: 4.6–6.4 lbs. • Cabinet: ABS-Black • Cabinet is wall-mountable or free standing *Each Refill Package includes all Electronic Components listed in each kit; each type is separately packaged.* 

\$71.95

52.95

\$134.95

#### 4000 Series CMOS IC Kit **SAVE \$27** Includes 300 pcs. (25 types) CD4000 Series Integrated Circuits 10 each 10 each 10 each 10 each 20 each CD4015 CD4024 CD4093 CD4051 CD4001 CD4016 CD4027 CD4069 CD4511 CD4011 CD4017 CD4040 CD4070 CD4538 CD4013 CD4020 CD4046 CD4071 CD4543 CD4049 CD4023 CD4050 CD4081 CD4584 CD4066 Part No. Wt. (Ibs.) Description 10

6.1 ..... \$79.95

1.4 ..... 58.95

6.2 ..... \$149.95

7400 Series IC Kit	SAVE \$73
Includes 350 pcs. (30 types) 7400 (TTL) Integrated Circuits	3/11

300 pcs. 4000 series CMOS IC kit

Refill for 84970EX (300 pcs.)

350 pcs. 7400 series IC kit

morades coo pos. (co types) / red (rrz) mograted encare							
I	10 each	10 each	10 each	10 each	10 each	20 eac	:h
I	7402	7416	7438	74107	74157	7400	
I	7405	7417	7447	74123	74160	7404	
I	7408	7420	7470	74132	74174	7406	
I	7410	7430	7485	74151	74175	7407	
I	7414	7432	7495	74153	74279	7474	
I	Part No.	Description		Wt. (II	bs.)	1	10

# 74LS Series IC Kit Includes 420 pcs. (35 types) 74LS (TTL) Integrated Circuits SAVE \$46

IIICIUUCS 4	20 pcs. (35 types)	74L3 (TTL) IIIC	gratea circuits		
10 each	10 each	10 each	10 each	20	each
74LS05	74LS73	74LS125	74LS193	74	LS00
74LS10	74LS75	74LS139	74LS240	74	LS02
74LS11	74LS85	74LS151	74LS244	74	LS04
74LS14	74LS86	74LS155	74LS245	74	LS08
74LS20	74LS90	74LS157	74LS273	74	LS32
74LS30	74LS93	74LS174	74LS373	74	LS74
74LS47	74LS123	74LS175	74LS374	74	LS138
Part No.	Description		Wt. (lbs.)	11	10
84961EX	420 pcs. 74LS seri	es IC kit	6.7 \$1	19.95	\$107.95
130391EX	Refill for 84961EX	(420 pcs.)	2.0	99.99	89.99

# Linear Series IC Kit Includes 480 pcs. (40 types) Linear Series Integrated Circuits SAVE \$52

1			•		
10 each	10 each	10 each	10 each	20	each
TL072CP	LM337T	LF412CN	ULN2803A	LN	1317T
TL074CN	LF353N	LMC555CN	NE5532	LN	1324N
TL082CP	LF356N	LM556N	7808T	LN	1339N
TL084CN	LM358N	LM723CN	78L12	LN	1741CN
MAX232CPE	LM386N-1	LM1458N	7815T	LN	1555CN
LM301N	LM386N-3	LM1488N	7905T	78	05T
LM308N	LM393N	DS1489N	7912T	78	L05
LM311N	LF411CN	ULN2003A	7915T	78	12T
Part No.	Description		Wt. (lbs.)	1	10
84988EX	480 pcs. Linear IC ki	t	6.0 \$*	182.95	\$164.65
130411EX	Refill for 84988EX (4	180 pcs.)	1.3 1	169.95	145.95

#### Low Profile IC Socket Kit

**SAVE \$13** 

Includes 300 pcs. (10 types) Solder tail (Tin) IC Sockets

10 each	20 each	20 each	50 each	50	each
22LP	18LP	28LP	8LP	16	LP
24SLP	24LP	40LP	14LP	20	LP
Part No.	Description		Wt. (lbs.)	1	10
85075EX	300 pcs. LP IC So	cket kit	5.5	\$36.95	\$33.25

#### 1/8-Watt Carbon Film Resistor Kit

Includes E40	naa /20	Luchuca)	1/0 wat E	-0/ F	Jacistora
Includes 540	pus. (su	values)	1/0-Wall 3	70 г	163131013

morauc.	3 540 pcs.	(30 values	) 1/0-Wall	J /0 NC3131	013		
10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
10Ω	$330\Omega$	$1.5 k\Omega$	$3.3$ k $\Omega$	$15k\Omega$	$47k\Omega$	$100\Omega$	$4.7k\Omega$
47Ω	$390\Omega$	$2\Omega$	$5.1k\Omega$	$22k\Omega$	$470k\Omega$	$220\Omega$	$10k\Omega$
150Ω	$470\Omega$	$2.2k\Omega$	$5.6k\Omega$	$27k\Omega$	$1M\Omega$	1kΩ	$100$ k $\Omega$
270Ω	$680\Omega$	$2.7k\Omega$	$6.8$ k $\Omega$	$33k\Omega$	$10 M\Omega$		
Part No.	Descri	ption		V	/t. (lbs.)	1	10
108329E	<b>X</b> 540 pc	cs. 1/8-watt F	Resistor kit		4.9	\$24.95	\$22.49
108302F	X Refill f	or 108329F)	( (540 ncs )		0.2	12 95	11 49

#### 1/4-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/4-watt 5% Resistors

10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
10Ω	$330\Omega$	$1.2k\Omega$	$2.7k\Omega$	15k $\Omega$	$47k\Omega$	$100\Omega$	$4.7k\Omega$
47Ω	$390\Omega$	$1.5$ k $\Omega$	$3.3$ k $\Omega$	$20k\Omega$	$470k\Omega$	$220\Omega$	$10k\Omega$
150Ω	$470\Omega$	$2k\Omega$	$5.1k\Omega$	$22k\Omega$	$1M\Omega$	$1k\Omega$	$100$ k $\Omega$
270Ω	$680\Omega$	$2.2k\Omega$	$5.6$ k $\Omega$	$33k\Omega$	$10 M\Omega$		
Part No.	Descri	otion		١	Nt. (lbs.)	1	10
81832EX	540 pc	s. 1/4-watt F	Resistor kit		4.9	\$27.95	\$24.95
103165EX	Refill f	or 81832EX	(540 pcs.)		0.2	12.95	11.49

#### 1/2-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/2-watt 5% Resistors

l	10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
l	10Ω	$330\Omega$	$1.5 k\Omega$	$3.3$ k $\Omega$	15k $\Omega$	$47k\Omega$	$100\Omega$	4.7kΩ
l	47Ω	$390\Omega$	$2k\Omega$	$5.1k\Omega$	$22k\Omega$	$470k\Omega$	$220\Omega$	10kΩ
l	150Ω	$470\Omega$	$2.2k\Omega$	$5.6$ k $\Omega$	$27k\Omega$	$1M\Omega$	1kΩ	100kΩ
l	270Ω	$\Omega$ 086	$2.7k\Omega$	$6.8$ k $\Omega$	$33k\Omega$	$10 M\Omega$		
	Part No.	Descri	otion		W	/t. (lbs.)	1	10
	107879EX	( 540 pc	s. 1/2-watt F	Resistor kit		5.1	\$29.95	\$26.95
	107852EX	Refill f	or 107879EX	(540 pcs.)		0.4	14.95	13.49

## Jameco is comitted to serving you.

We're always looking for suggestions and feedback about the products we offer. Help us better supply more of the products you need.

Drop us a line at: <u>AtHome@Jameco.com</u>





#### Kits include the Most Popular Components and a Cabinet with extra drawers for your Customized Expansion



81875EX (Capacitor Kit)

Each Kit includes a 20-Drawer Component Cabinet (81701EX), 20 clear plastic drawers (85454EX), 20 clear dividers (85446EX) 30 adhesive labels for drawers to identify parts in kit, and all the Electronic Components listed in each kit.



- Cabinet size: 6.0"L x 15.0"W x 7.9"H Cabinet: ABS-Black
- Drawer size: 5.5"L x 2.7"W x 1.5"H · Weight: 4.6 to 6.4 lbs
- · Cabinet is wall-mountable or free standing

Each Refill Package includes all Electronic Components listed in each kit; each type is separately packaged.





108433EX (Hardware Kit)

# 3/4-Watt 15 Turn Cermet Potentiometer Kit SAVE \$32

Includes 100 pcs. (10 values) 3/4-watt Linear Taper Potentiometer

10 each	10 each	10 each	10 each	10 e	each
43P500Ω	43P5kΩ	43P500k $Ω$	43P1kΩ	43P	50kΩ
$43P2k\Omega$	43P20kΩ	$43P1M\Omega$	43P10kΩ	43P	100kΩ
Part No.	Description		Wt. (lbs.)	1	10
85041EX	100 pcs. 15 turn Pot ki	it	4.9 \$	82.95	\$74.65

#### Switch Assortment Kit

Includes 150 pcs. (15 types) Pushbutton. Slide, Dip & Toggle Switches

10 each	10 each	10 each	10 each	10 €	each
206-4	JMT121	JMT223	MPC221	MS	103
206-8	JMT123	MPC121	MPC223	SD	ΓX620K
JMT113	JMT221	MPC123	MS102	SW	153
Part No.	Description		Wt. (lbs.)	1	10
85059EX	150 pcs. Switch kit		5.0\$	98.95	\$88.95

#### Hardware and Spacer Assortment Kit

Includes 2300 pcs. (23 types) Spacers, Nuts, Flat, Tooth & Lock Washers and Slotted PH Screws

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**SAVE \$52** 

100 each	100 each	100 each	100 each	100 each	100	each
Spacers	Hex nuts	Flat	Int. tooth	Split lock	PH mach	ine screws
_	2-56	_	_	#2	2-56 x	1/4, —
4-40	4-40	#4	#4	#4	4-40 x	1/4, 1/2
6-32	6-32	#6	#6	#6	6-32 x	1/4, 1/2
8-32	8-32	#8	#8	#8	8-32 x	1/2, —
Part No.	Description			Wt. (lbs.)	1	10
108433EX	2300 pcs. H	ardware kit		7.5	\$55.95	\$50.36
130497EX	Refill for 10	8433EX (2300	pcs.)	2.7	39.95	35.95

#### Ceramic Disc Capacitor Kit

SAVE \$16 Includes 520 pcs. (10 values) 50V ±20% Ceramic Disc Capacitors

20 each	20 each	20 each	100 each	100	each
10pF	47pF	470pF	.022µF	.01	μF
22pF	100pF	.001µF	.047µF	.1µl	
Part No.	Description		Wt. (lbs.)	1	10
81859EX	520 pcs. Ceramic	Capacitor kit	5.0	\$35.95	\$32.35
130232EX	Refill for 81859EX	(520 pcs.)	0.3	17.95	16.49

#### Monolithic Ceramic Capacitor Kit

**SAVE \$10** Includes 280 pcs. (10 types) 50V ±20% Monolithic Ceramic Capacitors

10 each	10 each	10 each	10 each	100	each
22pF	.001µF	.047µF	.47µF	.01μ	ıF
100pF	.0022μF	.22µF	1μF	.1µF	:
Part No.	Description		Wt. (lbs.)	1	10
171475EX	280 pcs. Monolithic	Capacitor kit	5.0	\$29.95	\$26.95
171483EX	Refill for 171475EX	(280 pcs.)	0.3	17.95	15.95

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Are you tired of loaning your latest copy of the Jameco catalog to a friend or business associate? If they can't take a hint just visit our website at:



We'd be happy to send them a catalog too!



Radial	Radial Electrolytic Capacitor Kit SAVE \$11									
Includes 240 pcs. (15 values) ±20% Radial Electrolytic Capacitors										
10 each	10 each	20 each	20 each	20 ea	ach					
100µF @ 50	OV 1000μF @ 16V	1μF @ 50V	3.3µF @ 50V	22µF	@ 50V					
220µF @ 25	5V 2200μF @ 25V	1µF @ 100V	4.7µF @ 50V	47µF	@ 50V					
470µF @ 25	5V 3300μF @ 25V	2.2µF @ 50V	10μF @ 50V	100µ	ıF @ 25V					
Part No.	Description		Wt. (lbs.)	1	10					
81867EX	240 pcs. Radial Capa	citor kit	5.3 \$2	9.95	\$26.95					
130331EX	Refill for 81867EX (2	40 pcs.)	0.5 1	7.95	16.49					

#### Axial Electrolytic Capacitor Kit

**SAVE \$13** 

Includes 140 pcs. (10 values) ±20% Axial Electrolytic Capacitors 10 each 10 each 10 each 20 each 20 each 47μF @ 50V 1μF @ 50V 220µF @ 50V 1000µF @ 25V 10µF @ 50V . 100μF @ 50V 470µF @ 50V 2200µF @ 16V 4.7µF @ 50V 2.2µF @ 50V Part No. Description Wt. (lbs.) 10 81875EX 140 pcs. Axial Capacitor kit \$34.15 0.6 ..... 24.95 130340FX Refill for 81875EX (140 pcs.) 22.49

#### Mylar Capacitor Kit

Wiylar (	Capacitor K	ıt		SAVE	\$11	
Includes 2	ncludes 280 pcs. (10 values) 100V ±10% Mylar Capacitors					
10 each	10 each	10 each	10 each	100	each	
.001µF	.022µF	.047µF	.47µF	.01µ	ιF	
.0047µF	.033µF	.22µF	1μF	.1µF	-	
Part No.	Description		Wt. (lbs.)	1	10	
81883EX	280 pcs. Mylar Ca	apacitor kit	5.1	. \$37.95	\$34.15	
130358EX	Refill for 81883E)	( (280 pcs )	0.3	19.95	17.95	

#### Dipped Tantalum Capacitor Kit

**SAVE** \$40

SAVE \$7

SAVE \$3

Includes 150 pcs. (15 values) ±20% Dipped Tantalum Capacitors 10 each 10 each 10 each 10 each 10 each .1µF @ 35V 1μF @ 25V 3.3µF @ 35V 10µF @ 16V 22µF @ 16V .22µF @ 35V . 1μF @ 35V . 10μF @ 35V 33μF @ 25V 4.7µF @ 35V .47μF @ 35V 2.2µF @ 16V 6.8µF @ 35V 15µF @ 25V 47µF @ 25V Part No. Description Wt. (lbs.) 10 81841EX 150 pcs. Tantalum Capacitor kit 4.8 ..... \$79.95 \$71.95 Refill for 81841EX (150 pcs.) 130260FX 0.3 59.95 53.95

#### Transistor Assortment Kit

Includes 560 pcs. (20 types)

NPN, PNP (High/Medium/Low Power) Transistors

10 each	10 each	10 each	10 each	100	each
2N2222A	2N4401	MJE3055T	TIP31A	2N3	3904
2N2907A	2N4403	MPF102	TIP32A	2N3	3906
2N3053	2N5951	MPSA06	TIP102	PN2	2222
2N3055	2N7000	MPSA13	TIP120	PN2	2907
Part No.	Description		Wt. (lbs.)	1	10
82595EX	560 pcs. Transistor	r kit	5.1	. \$82.95	\$74.65
130374EX	Refill for 82595EX	(560 pcs.)	0.4	69.95	62.95

#### **Diode Assortment Kit**

Includes 420 pcs. (15 types) Zener, Switching and Silicon Rectifiers

10 each	10 each	10 each	10 each	100	each
1N270	1N4001	1N4735	1N5408	1N <sup>o</sup>	914
1N751	1N4007	1N4742	C106B1	1N4	4004
1N3600	1N4733	1N5404	KBP04M	1N4	4148
Part No.	Description		Wt. (lbs.)	1	10
82587EX	420 pcs. Diode kit		5.0	\$39.95	\$35.95
130366EX	Refill for 82587EX	(420 pcs.)	0.3	25.95	21.95

• Number of poles: 12

Material: Polyamide 66

• 1.2mm raised base · Working temperature: 230°F (110°C)

10

\$1.59

1.69

2.29

A 208872EX

10

\$.89

1.59





#### **Terminal Blocks**

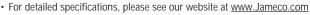








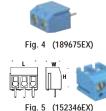




Fig. 3 (161066EX)

78318FX

Part No.	Mfg.	Product No.	Fig.	Term.	Terminal Spacing	1	10
99426EX	Dinkle	DT128/2	1	2	.197"/5mm	\$.72	\$.55
99397EX	Dinkle	DT128V3P	1	3	.197"/5mm	.99	.89
160784EX	Dinkle	EK500V-02P	2	2	.197"/5mm	.65	.55
161066EX	Dinkle	EK500A-02P	3	2	.197"/5mm	.75	.65
189675EX	OST	EDC500/2DS	4	2	.197"/5mm	.79	.71
189667EX	OST	EDC500/3DS	4	3	.197"/5mm	.89	.80
152346EX	OST	EDC120/2DS	8	2	.200"/5.08mm	.65	.55
152354EX	OST	EDC120/3DS	8	3	.200"/5.08mm	.47	.44





78326EX

147387EX

057/

Part No.

215010EX PA8H

215028EX PA10H

215036EX PA12H

12-22 ..... \$1.79

10-22 ..... 1.89

10-22 ..... **2.59** 

215010EX

#### 188672EX 188699EX

**European Terminal Blocks** 

(nylon 66), UL94V2, natural • Voltage: 600V · Terminal insert: brass metal alloy, nickel plated

· Wire protector: stainless steel spring

· Screws: zinc plated, yellow chromed

Prod. No. Amps AWG

30A

35A

**KULKA® 601 GP Series** 

**Double Row Terminal Blocks** 

 Base: general purpose phenolic; 150°C Screws: #6-32, binder head, phillips-slot

- Terminals: brass plated • Width (W): 1.12' • .437" (11 mm) centers · Height (H): .50"
- 1100Vrms; 20A ratings; for 14-16 AWG wires

· UL/CSA/CE approved Open block design

Part	Product		Diffiel	1210112		
Number	Number	Poles	A"	B"	1	10
188699EX	601GP4	4	2.19	2.50	\$1.69	\$1.49
188672EX	601GP8	8	3.94	4.25	2.95	2.75
188701EX	601GP12	12	5.69	6.00	5.49	4.95

Metric Double Row Terminal Blocks

· For detailed specs, please see www.Jameco.com

**71** (12

Poles A

208881EX GGE-10-12P 12 123.5 131 ......

4 47 5

95

Dimensions

55

102.5 ..... **1.69** 

# 0.098"-Pitch AT Power Connectors for Motherboards & Power Supplies

- Voltage rating: 250V AC/DCCurrent rating: 7A AC/DC
- Temperature range: -25°C to 85°C Insulation resistance: 1000MΩ min.
- · Withstanding voltage: 1500V/min.

78300EX: AMP60G male 6-pin PCB mount connector Material of post: tin-plated brass
 Diameter of post: .09"

78326EX: AMP50G female 6-pin housing connector • Material: nylon

78318EX: AMP501T terminal pin • Material: tin-plated brass

	oo	matorian	* Prepackaged: order in increments of 10					
Part No.	Description	L	W	Н	Dia	Use With	1	10
78300EX	6-pin male connector	.93"	.37"	.57"	_	_	\$.45	\$.39
78326EX	6-pin housing connector	.94"	.25"	.74"	_	78300EX	.35	.31
78318EX	Power terminal pin, female	.69"	_	_	.09"	78326EX	*	.11

# 0.118"-Pitch ATX Power Connectors for **Motherboards & Power Supplies**

- · Voltage rating: 250V AC/DC
- Temperature range: -25°C to 85°C
- Insulation resistance: 1000MΩ min. 147379EX: ATX male 20-pin edge mount connector
- Material: nylon 66, UL-94VO
- 147387EX: Housing Connector 147395EX: ATX power terminal pins
- · Material of post: tin-plated brass

· Withstanding voltage: 1500V/min.

 Material: nylon 66, UL-94VO · Material: tin-plated brass

Current rating: 7A AC/DC

· Diameter of post: .045"

78300EX

Part No.	Description	L	W	Н	Dia	Use With	1	10
147379EX	20-pin male connector	1.7"	0.4"	0.6"	_	_	\$.59	\$.53
147387EX	20-pin housing connector	1.7"	0.4"	0.8"	_	147395EX	*	.19
147395EX	Power terminal pin, female	.59"	_	_	.068"	147387EX	*	.12

104731EX

# .156" (3.9mm) Center Crimp Pin

- Use with .156" housings (below)
- Material: brass/tin plated
- Prepackaged: order in increments of 10 or 100





#### .156" (3.9mm) Center **Housing Connectors**

- · Common to many power supplies carried by Jameco. Some power supplies (pgs 31-34) may require multiple connectors
- Housing material: nylon 66, UL94V-2
- Use with crimp pins, 78318EX, above \* Prenackaged: order in increments of 10

is tropacitagous craci in more incidente or re								
Part No.	Mfr. Cross Ref. No.	Pins	1	10				
104715EX	LCH4	4	*	\$.22				
104731EX	LCH6	6	33	.30				

## .100" Non-Polarized Connector **Housings & Crimp Pins**

147379EX

· Mates with .025" square post on pattern of .100" centers (male headers, see left)

Current rating: 1A

Pin material: brass/tin plated

• Pin wire gauge: 22-26 AWG Plastic • Temperature rating: -55°C to +105°C

· Prepackaged: order in increments of 10 or 100

Single Row & Double Row

Part No.	Mfr. Cross Ref. No.	Contacts	10	100
100811EX	SCH2	2	. \$.23	\$.21
157382EX	SCH3	3	24	.22
100802EX	SCH4	4	25	.23
163686EX	SCH5	5	27	.25
103211EX	SCH6	6	31	.27
103202EX	SCH8	8	35	.29
157420EX	DCH10 (double row)	10	69	.62
103229EX	DCH20 (double row)	20	99	.89
100765EX	FCH1	Female pin	11	.09
145357EX	MCH1	Male pin .	15	.135

\* Prepackaged: order in increments of 10

100802EX

100765EX



10A @ 600V

Part

Number

· Screw size: M3.0

• Width (W): 19.5mm

· Height (H): 11.9mm

208856FX GGF-10-4P

20A @ 600V · Screw size: M3.5

208872EX GGE-10-8P 8

Product

Number

Part	Product		Dime	nsions	2075	571EX
Number	Number	Pole	s A	В	1	10
207538EX	GGE-20-4P	4	54.5	63.5	\$1.39	\$1.25
207554EX	GGE-20-8P	8	98.1	107.1	2.59	2.35
207571EX	GGE-20-12F	12	141.7	150.7	3.59	3.19

#### .100" IDC Socket Connectors

#### Double row polarized

· Mates with 2 rows of .025" Sq.

or Dia. posts on patterns of .100" centers Industry standard IDC socket (plastic)
 Temp. rating: -55°C to +105°C • Current rating: 1A

Use P/N 73251EX, pg 53: insulation displacement

connection crimper for these connectors Mfr Cross Ref No Contacts

raitivo.	IVIII. CI USS INCI. INU.	Contacts		- 10
32491EX	S10	10	\$.29	\$.25
119466EX	S16	16	35	.29
32563EX	S26	26	45	.35
32643EX	S34	34	49	.39
32678EX	S40	40	55	.45
32707EX	S50	50	65	.55





#### 0.2"-Pitch Power Connectors & Pins

#### Connector & Housing Specifications:

Voltage rating: 250VAC (Mate-N-Lock 600VAC)
Operating temperature: -55°C to +105°C

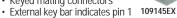
#### Crimp Pin Specifications:

- Material: tin plated brass
   Current rating: 1.5 amps
   Wire size range: 18-24 AWG
   Use tool P/N 99442EX, pg 53

#### For 5.25" Disk Drives and Power Supplies

#### 42075EX & 42067EX Connector Housings:











(Male for 42075EX) (Fem. for 42067EX)

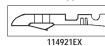
- See web for extraction tools, P/N 131887EX & 131879EX
- Prepackaged: order in increments of 10 or 100

Part No.	Description 10	100
109145EX	4-pin M vert. PCB mtg \$.59	\$.48
117567EX	4-pin M PCB mount, horiz. edge mount .63	.57
42075EX	4-pin M housing12	.11
42067EX	4-pin F housing20	.15
42729EX	M crimp pin for 42075EX10	.07
42649EX	F crimp pin for 42067EX	.07

#### For 3.5" Disk Drives and Power Supplies







Receptacle

Prepackaged:	order	in increments	of	10 or 100

Part No.	Description 10	100
114930EX	4-pin F housing \$.19	\$.17
114921EX	F crimp pin for 114930EX11	.095
Part No.	Description 1	100
114999EX	4-pin M rt. angle PCB mtg \$.35	\$.31

#### .093" Power Connector Kits

Plug

142228EX

Standard Crimp Contacts

These assortment kits contain mating sets of housings and pins.

Volt.: 250VAC

 Temperature, range: -40°C to +105°C

142181EX: • 3 ea. 2-pin plugs & receptacles,

8 ea. female & male contacts 142201EX: • 2 ea. 4-pin plugs & receptacles, 10 ea. F & M contacts

142228EX: • 2 ea. 6-pin plugs & receptacles, 14 ea. female and male contacts

Includes: Female & male tin-plated standard brass .010" pins: 18-22 AWG crimp size wire

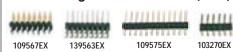
piris, 10-22	pilis, 10-22 AWO CHITIP SIZE WILC					
Part No.	Product No.	Current	1	10		
142181EX	1545	12 Amps	\$4.95	\$4.49		
142201EX	1490	9 Amps	5.69	5.15		
142228EX	1261	9 Amps	5.25	4.75		

# .100" and 2mm Shorting Blocks

- Mates to .025" square posts on .100" centers
- · Shorting socket jumper to address or code strip line plugs
- · Mate with male headers
- · Pin material: phosphor bronze
- · Prepackaged: order in increments of 10 or 100 Open: open on top to allow for a test point Closed: closed - functionally they are the same

Olosca. Ci	osca ranctionally	y tiloy die ti	C Juille	
Part No.	Description	Color	10	100
22023EX	Top open	Black	\$.12	\$.09
19140EX	Top closed	Black	12	.09
112441EX	Top closed	Blue	12	.09

#### .100" Straight Male Headers (Gold)



- · Snap apart to fit your application
- · Contact area: gold
- · Contact material: phosphor bronze
- Current rating: 1 amp Insulation: glass filled polyester
   Temp. range: -55°C to +120°C
- Solder to PC boards for instant plug-in access
- .025" square posts on a .100" x .100" matrix
- · Use w/ crimp connector housing, pg 39
- \*Prepackaged: order in increments of 10

#### Single Row

Part No.	Mfr. Cross Ref. No.	Contacts	1	10
108337EX	SMH02	2	*	\$.16
109575EX	SMH03	3	*	.17
117559EX	SMH04	4	*	.17
153699EX	SMH06	6	*	.17
153701EX	SMH08	8	*	.20
103392EX	SMH10	10	*	.18
103376EX	SMH17	17	*	.16
103368EX	SMH20	20	*	.25
202825EX	SMH22	22	*	.25
103350EX	SMH25	25	*	.25
103341EX	SMH30	30	35	.31
160881EX	SMH40	40	49	.44

#### **Double Row**

Part No.	Mfr. Cross Ref. No.	Contacts	1	10
115027EX	923804DS	4	*	\$.10
115035EX	923806DS	6	*	.18
109516EX	923808DS	8	*	.18
67820EX	923810DS	10	*	.18
109567EX	923816DS	16	55	.49
203844EX	923824DS	24	70	.65
53495EX	923863DS	26	70	.55
53532EX	923865DS	40	65	.55
53559EX	923866DS	50	60	.55
103405EX	923872DS	72	85	.75
117196EX	923880DS	80	90	.80

#### .100" Low-Profile Straight Male **Shrouded Headers**

· Features: UL recognized, CSA certified; .025" square post mates with sockets on .100" x .100" grid

Contact: phosphor bronze, gold plated Material: glass filled polyester, gray, UL94V-0

Use with IDC socket connectors, pg 39

Part No.	Description	1	10
67811EX	10-pin male shrouded header \$.3	9	\$.35
68179EX	16-pin male shrouded header4	4	.40
68371EX	26-pin male shrouded header5-	4	.42
181104EX	40-pin male shrouded header7	5	.60

#### .100" (2.5mm) Female **Header Receptacles**



67811EX

- Gold plated contacts 0.1" contact center
- · Top entry · Vertical mount

Part No.	Contacts	Type 1	10
70754EX	8	Single row \$.59	\$.53
200782EX	12	Single row	.59
70720EX	16	Double row	.79
70826EX	20	Double row99	.89
163862EX	34	Double row1.19	1.05
111704EX	40	Double (Tin)1.29	1.15



#### .100" Right Angle Male Headers Single Row



	•			
Part No.	Mfr. Cross Ref. No.	Contacts	1	10
153728EX	RMH08	8	. \$.45	\$.40
103270EX	RMH36	36	75	.64



#### .100" Right Angle Male Headers



Part No.	Mfr. Cross Ref. No.	Contacts	1	10
203916EX	923806DR	6	\$.55	\$.49
203932EX	923810DR	10	59	.53
53575EX	923820DR	20	59	.53
53604EX	923840DR	40		.75
53612EX	923850DR	50		.75
103413EX	923872DR	72	1.15	.99
139563EX	923880DR	80	1.35	1.19

#### Solder Tail Low Profile Sockets







- · Contact current: 1A
- · Material: beryllium copperor phosphor bronze
- Tin-plated contacts and tails
- Contact resistance: less than 5mΩ
- · Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than  $1000M\Omega$
- Insulator: glass-filled polyester or glass-filled
- polyphenylene sulfide
- Sleeve material: brass
- · Thru-hole lead length: .140" (A)
- Body height: .188" (B)

#### Sinale Wipe

· Prepackaged: order in increments of 10 or 100

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	10	100
51570EX	8LP	8	0.3	\$.07	\$.06
37161EX	14LP	14	0.3	09	.07
37372EX	16LP	16	0.3	10	.09
38113EX	18LP	18	0.3	11	.094
41110EX	40LP	40	0.6	19	.17

#### Dual Wipe

· Prepackaged: order in increments of 10 or 100

	Mfr. Cross				
Part No.	Ref. No.	Pins	Width (in.)	10	100
112205EX	8LPD	8	0.3	\$.09	\$.08
112213EX	14LPD	14	0.3	10	.075
112221EX	16LPD	16	0.3	13	.115
112230EX	18LPD	18	0.3	16	.14
112248EX	20LPD	20	0.3	17	.14
112264EX	24LPD	24	0.6	19	.16
112299EX	28SLPD	28	0.3	21	.19
112272EX	28LPD	28	0.6	21	.15
112301EX	32LPD	32	0.6	18	.14

# Over 99% of our products are in stock!

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1-800-831-4242 www.Jameco.com



#### Machine Tooled Solder Tail Low Profile Sockets

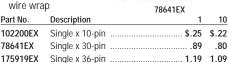
- · Contact plating: gold
- Tin-plated leads
- Contact current: 3A
- Multiple contact elements
- · Material: beryllium copper or phosphor bronze
- Contact resistance: less than  $5m\Omega$
- · Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than  $1000M\Omega$
- · Insulator: glass-filled polyester or glass-filled polyphenylene sulfide • Sleeve material: brass
- Thru-hole lead length: .177" (A) Body height: .117" (B)

	Mfr. Cross		Width		
Part No.	Ref. No.	Pins	(in.)	1	10
51625EX	8MLP	8	0.3	\$.25	\$.22
37196EX	14MLP	14	0.3	42	.38
37401EX	16MLP	16	0.3	47	.43
65584EX	18MLP	18	0.3	55	.49
38623EX	20MLP	20	0.3	59	.55
39351EX	24MLP	24	0.6	72	.65
114411EX	28SMLP	28	0.3	85	.75
40328EX	28MLP	28	0.6	83	.75
105380EX	32MLP	32	0.6	95	.85
41136EX	40MLP	40	0.6	1.19	1.05
42059EX	48MLP	48	0.6	1.29	1.18
200707EX	64MLP	64	0.9	1.35	1.25

#### Machine Contact Single-In-Line **Female Sockets**

•	iviacnine tooled
	Calder tail and

Solder tail and wire wrap



Single x 30-pin WW3\*......1.95 1.75

104053EX

# Level 2 & 3 Wire Wrap Sockets

- · Contact plating/leads: gold (WW) or tin (TWW); Dual Wipe
- · Material: beryllium copper or phosphor bronze
- · Contact current: 1A
- Contact resistance: less than  $5m\Omega$ 37233EX
- · Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide • Sleeve material: brass
- Thru-hole lead length: .438" (L2); .638" (L3)
- Body height: .300" (A)

#### Gold (WW)

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10
37479EX	16WW2	16	0.3	\$1.75	\$1.59
38674EX	20WW2	20	0.3	2.25	1.99
37233EX	28WW2	28	0.6	1.49	1.35
40352EX	28WW2	28	0.6	2.19	1.99
41187EX	40WW2	40	0.6	3.15	2.80

Tin (TWI	N)			SA	
Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10
196841EX	14TWW3	14	0.3	\$.91	\$.82
37217EX	14TWW2	14	0.3	1.15	1.03
37436EX	16TWW2	16	0.3	99	.89
75379EX	20TWW2	20	0.3	1.69	1.52
75424EX	28TWW2	28	0.6	1.89	1.63
41179FX	40TW/W2	40	0.6	2 49	2 15

#### Wire Wrap Socket I.D. Markers



- · Quick identification of pin numbers
- Slips onto socket before wrapping
- · Can easily write location, 37145EX part number or function

Part No.	Prod. No.	Pins	Width (in.)	1	10
37145EX	14ID	14	0.3	\$.35	\$.31
40299EX	28ID	28	0.6	65	.55

#### **Level 3 Machine Tooled** Wire Wrap Sockets

37410EX

- · Contact plating: gold
- Tin-plated leads
- Contact current: 3A
- Contact resistance: less than 5mΩ
- · Dielectric withstanding voltage: 300Vrms
- · Material: beryllium copper or phosphor bronze
- Insulation resistance: greater than  $1000M\Omega$ Sleeve material: brass
  Body height: .115" (A)
  Thru-hole lead length: .515" (L3)
- · Insulator: glass-filled polyester or glass-filled polyphenylene sulfide

	Mfr. Cross		Width	
Part No.	Ref. No.	Pins	(in.) 1	10
94473EX	8MSWW3	8	0.3 <b>\$.53</b>	\$.46
62050EX	14MSWW3	14	0.3 <b>.93</b>	.80
37410EX	16MSWW3	16	0.3 <b>1.09</b>	.93
38631EX	20MSWW3	20	0.3 <b>1.33</b>	1.14
94490EX	24MSWW3	24	0.6 <b>1.60</b>	1.38
40336EX	28MSWW3	28	0.6 <b>1.69</b>	1.43
94502EX	40MSWW3	40	0.6 <b>2.66</b>	2.28

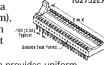
#### PLCC Solder Tail Sockets

- · Solder tail allows throughhole board patterns in .100" grid
- Accepts JEDEC type "A" plastic leaded chip (0.05" centers) 71618EX
- Thru-hole lead length: .125" · Body height: .375"

Part No.	Mfr. Cross Ref. No.	Pins	1	10
71811EX	G1P432	32	\$.55	\$.48
71618EX	G1P444	44	1.15	.99
71968EX	G1P468	68	1.15	.99

#### **PARIES** Low Profile ZIF Sockets

A low cost solution for ZIF test socket requirements. It has a height of only .319" (8.10mm), and even with the handle in open position measures just .554" (14.07mm).



· Strong rigid cast metal cam provides uniform action over entire contact area

Part No.	Aries No.	Pins	Dim X	1	10
102744EX	28-526	28	1.64" \$	5.49	\$4.99
102752EX	40-526	40	2.24"	6.95	6.39

# **MARIES** Universal ZIF Sockets

- · Solder directly to PCB or plug directly into IC socket Screw mounting holes for
- 103991FX reliable operation Accepts .300" to .600" IC centers x .1" spacing
- Part No. Pins Aries No. 103991EX 24-6554-10 24 104002EX 28-6554-10 28 7.39 104011FX 32-6554-10 32 **9.95** 8.49 104029EX 40-6554-10 40 ...... 11.25 9.80

#### **D-Subminiature** Connector Hoods



Use with D-sub solder cup

and housing style connectors D Series: plastic hood with strain relief (gray) MD Series: metal coated plastic hood w/ strain relief MH Series: die-cast metal hood with strain relief

Includes: Hardware

nininini

Part No.	Mfr. Cross Ref. No.	Conn.	1	10
15721EX	DB9H	9-pin	\$.49	\$.45
25620EX	MDB9H	9-pin	59	.49
147740EX	MDB9H	9-pin	1.45	1.29
15018EX	DA15H	15-pin	49	.45
25566EX	MDA15H	15-pin		.44
15085EX	DB25H	25-pin	45	.39
25603EX	MDB25H	25-pin	59	.49
15106EX	MDB25H	25-pin	1.39	1.19
15456EX	DC37H	37-pin	59	.55
25611EX	MDC37H	37-pin		.69

#### 25-Pin Dual Plastic Hood

Designed for custom applications requiring two D-sub connectors. Applications include custom jumper boxes and interconnects.



Part No. Description 34091FX 25-pin, plastic dual ..... \$.95 \$.85

#### 4-40 Mounting Screw Hardware for D-Subminiature Connectors

4-40 x .187" Jack Screws 108986FX \*Prepackaged: order in increments of 10 or 100

		SALE .	
Part No.	Description	1	10
172603EX	.315"L jack screw	*	\$.14
102816EX	.435"L jack screw		.46
108986EX	.515"L jack screw	55	.50

4-40 Screw Sets

102808EX: 4-40 screw (.30"L) and retainer set 102808EX

12431EX

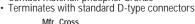
16547EX: 4-40 x .187" jack screw (.31"L thread), washer, lock washer and nut set

Prepackaged: order in increments of 10 or 100

Part No.	Description 10	100
102808EX	Screw/retainer set \$.35	\$.30
16547EX	Screw/nut set	.25

#### **IDC Ribbon Cable Connectors**

- Current rating: 1 amp
- Temp range: -55°C to +120°C
- Insulation material: glass-filled polyester
- Contact material: phosphor bronze



Part No.	Ref. No.	Cont.	Gen.	Shell	1	10
109225EX	MDB9P <sup>†</sup>	9	M	metal	. \$1.35	\$1.25
12503EX	CDB9P	9	M	plastic	2.49	1.79
109217EX	MDB9S <sup>†</sup>	9	F	metal	1.49	1.19
12520EX	CDB9S	9	F	plastic	2.59	2.35
115983EX	MDB25P	25	M	metal	1.85	1.69
12335EX	CDB25P	25	M	plastic	1.89	1.69
115975EX	MDB25S	25	F	metal	1.85	1.65
12431EX	CDB25S	25	F	plastic	1.95	1.79
4						

109225FX/109217FX: require flat cable with 0625" centers





#### **D-Subminiature Connectors**

Solder-Cup Connectors





· Compatible with 24 AWG communications and 22 AWG solid cable, pg 43 • Shell: tin plated metal

Part No.	Contacts	Gender	1	10
15747EX	9	M	\$.56	\$.44
15771EX	9	F	59	.49
15077EX	15HD*	M	69	.59
164822EX	15HD*	F	79	.69
15034EX	15	M	55	.49
15051EX	15	F	59	.49
15114EX	25	M	99	.89
15157EX	25	F	89	.80
15472EX	37	M	99	.85
15499EX	37	F	1.19	1.05

<sup>\*</sup>High Density

#### Straight PC Mount Connectors

15122EX

Non-removable contacts

• 125 Vrms

· Current rating: 5 amps

• Operating temp: -65°F to +250°F

• Shell: tin plated metal 15780EX					1
Part No.	Mfr. Cross Ref. No.	Contacts	Gender	1	
111691EX	DB9PPCB	9	Μ	\$.55	\$.
1F700FV	DDOCDCD	0	г	FF	

Part No.	Ref. No.	Contacts	Gender	1	10
111691EX	DB9PPCB	9	Μ	\$.55	\$.45
15780EX	DB9SPCB	9	F	55	.45
176760EX	DA15PPCB	15	Μ	49	.39
176751EX	DA15SPCB	15	F	49	.44
15122EX	DB25PPCB	25	Μ	65	.59
15165EX	DB25SPCB	25	F	74	.55
180021EX	DC37SPCB	37	F	85	.72

#### **D-Subminiature Connectors**

Right Angle PC Mount Connectors





 Lead length: .138" Lead spacing: .115"

· Shell: tin plated metal Current rating: 1A

	Mfr. Cross				
Part No.	Ref. No.	Cont.	Gender	1	10
104942EX	DB9P318	9	М 9	\$.55	\$.50
104951EX	DB9S318	9	F	.60	.55
71124EX	DA15P318	15	Μ	.69	.59
77956EX	DA15S318	15	F	.79	.69
168743EX	HDDB15S318*	15	М	.49	.42
71466EX	HDDB15S318*	15	F	.59	.53
15149EX	DB25P318	25	М	.79	.65
15181EX	DB25S318	25	F	.89	.79
71706EX	DC37P318	37	М	.99	.89
78182FX	DC37S318	37	F '	1 15	95

\*High Density

#### **PCB Right Angle Centronics Connectors**





• Solder-type contacts • Space between rows: .164" • Space between pins: 0.1" • Metal body • PC mount Part No. Description 1 10 72151EX 36-contact female ...... \$3.55 \$3.19 72080EX 50-contact female ...... 4.95

Find more @ www.Jameco.com

#### **DIN Female Sockets**

· Metal body

15851EX

· Panel mount with solder lugs Part No. Mfr. Cross Ref. No. 15843EX DINJ5 5 ...... **\$1.29** \$1.15 15851EX DINJ6 6 ...... 1.39 1.25 15860EX DINJ8 8 ...... 1.49 1.35

## **DIN and Mini DIN Plugs and Receptacles**





- · Solder barrels including strain relief
- · See page 42 for cable

Part No.	Pins	Type 1	10
142261EX	6	Mini plug \$.89	\$.77
111878EX	8	Mini plug	.89
177236EX	8	Mini receptacle 1.09	.93
15878EX	5	DIN plug	.47
15886EX	6	DIN plug	.50
15894EX	8	DIN plug	.56

#### Right Angle DIN Female Sockets

- Set back: 0.5"
- · PC mount contacts 140791EX/119474EX:

Plastic/metal body 29399EX: Plastic body





Part No.	Mfr. CrossRef. No.	# of pins	1	10
140791EX	MDR4S	4 (mini)	\$.69	\$.59
119474EX	MDR6S	6 (mini)	75	.68
207722EX	MDS8100	8 (mini)	99	.89
29399EX	RD5	5	59	.53

## Cable

Part No.

# Gray Flat Ribbon Cable - 28 AWG 103481EX

- Single edge red stripe for pin 1 orientation
   Insulation: polyvinyl chloride (PVC)
   28 AWG (7 x 36)
   Center spacing: 0.05"
- Voltage rating: 300V
   Stranded copper wire
   Temp. rating: -20°C to +80°C
- · Prepackaged and priced in increments of 10' or 25'

Part No.	Cross Ref. No.	Conductors	10 ft.	25 ft.
135538EX	171-10	10	\$1.49	\$3.20
37671EX	171-16	16	2.20	5.00
37719EX	171-20	20	4.00	6.25
37760EX	171-25	25	3.90	8.75
37807EX	171-26	26	3.49	8.00
37840EX	171-34	34	4.25	9.25
37911EX	171-37	37	5.90	11.75
37920EX	171-40	40	7.40	17.50
37954EX	171-50	50	6.75	14.50
103481EX	171-60	60	8.95	19.75

#### Multicolor Flat Ribbon Cable - 28 AWG

- Standard 10-color repeat sequence 28 AWG (7 x 36)
- Center spacing: 0.05"
   Voltage rating: 300V
- Temp. rating: -20°C to +80°C Stranded copper wire
- · Prepackaged and priced in increments of 10' or 25'

Part No.	Cross Ref. No.	Conductors	10 ft.	25 ft.
112547EX	28RC10	10	\$1.95	\$4.50
105671EX	28RC16	16	3.25	7.25
105689EX	28RC20	20	3.95	9.00
105697EX	28RC25	25	6.29	14.25
105700EX	28RC34	34	6.50	13.00
105726EX	28RC40	40	8.69	19.55
105718EX	28RC50	50	10.95	24.95

#### Category 5 Network Cable

Description

- · Insulation: polyethylene • Nom. OD.: 0.189" • UTP
- Nom. impedance: 100Ω • 8C • 4 twisted pairs
- Solid: uses modular plug P/N 119343EX, pg 78 Stranded: uses modular plug P/N 79281EX, pg 78
- · Prepackaged and priced in increments of 25' or 100'

24 AWG UTP Category 5 Enhanced - 350MHz

,	see pages	4
2.83	for our Sel	ection
of	Networki	ng
U	Products	
	Products	

25 ft.



31843EX

118130EX

176225EX	Solid (gray)	\$17.00
201603EX	Stranded (blue)	14.00
176233EX	Stranded (gray)	21.00
201574EX	Stranded (red)	18.00
201582EX	Stranded (blue)	18.00
24 AWG	UTP Category 5 – 100MHz	
Part No.	Description 25 ft.	100 ft.
118130EX	Stranded (gray) (7/32 AWG)	\$19.35
201646EX	Stranded (gray) (7/32 AWG) 5.50	15.00

#### Multiconductor Shielded Computer Communication Cable – 24 AWG

- · Stranded copper wire, multi-colored insulation
- Insulated with polyvinyl chloride (PVC)
- Voltage rating: 300V · Color: gray · Drain wire
- 24 AWG (7 x 32 AWG) Shielded 100% w/ aluminum mylar
- · Prepackaged and priced in increments of 25' or 100'

Part No.	Cross Ref. No.	Conductors	Diameter	25 ft.	100 ft.
31860EX	SC4	4	0.20"	\$4.75	\$17.00
31878EX	SC9	9	0.23"	11.25	35.00
31843EX	SC15	15	0.28"	14.75	49.00
31851EX	SC25	25	0.37"	22.25	71.00

105718EX

22541EX



#### Modular Telephone Cable - 28 AWG

 Color coded conductors
 Flat modular cable PVC jacket
 Gray
 7 x 43 stranded



103430EX	
400.0	4000

Part No.	Cross Ref. No.	Conductors	100 ft.	1000 ft.
103430EX	MTC4	4	\$3.30	\$30.00
103448EX	MTC6	6	7.00	50.00
103450EX	MTC8	8	10.00	62.00

#### 2-Conductor Stranded Power/Speaker Cable – 24 AWG

- · Black wire with white polarity stripe
- Temperature rating: 20°C to 60°C
- Stranded copper wire (7 x 32)

Operating voltage: 300V



Part No.	Cross Ref. No.	Wt. (lbs.)	100 ft.	Part No.	Cross Ref. No.	Wt. (lbs.)	1000 ft.
100280EX	224BK/C	0.8	\$5.59	100298EX	224BK/K	7.8	\$39.95

# RG Type Bulk Coaxial Cable

RG58/U & RG58A/U (50 $\Omega$ ): Nom. cap.: 27pF/ft.; center resist.: 10.4 $\Omega$ /kft. @ 77°F RG59/U (75 $\Omega$ ): Nominal capacitance: 19pF/ft.; center resist.: 16.5 $\Omega$ /kft. @ 77°F **RG174/U** (50 $\Omega$ ): Nominal capacitance: 30.8pF/ft.; center resist.: 97 $\Omega$ /kft. @ 77°F

· Prepackaged and priced in increments of 100' or 1000'

Part No.	Cross Ref. No.	Description 100	ft. 1000	ft.
102226EX	RG58/U	For ethernet, oscilloscopes (solid 20AWG) \$12.	00 \$90.	.00
116898EX	RG58A/U	For ethernet, oscilloscopes (stranded 20AWG) 19.	00 150.	.00
102218EX	RG59/U	For CATV & video patch cords (solid 22AWG) 13.	00 110.	.00
112037EX	RG174/U	For ethernet, oscilloscopes (stranded 26AWG) 19.	00 169.	.00

#### Twisted Pair Cable – 24 AWG

- · PVC insulation · Use for hook up wire
- Stranded tinned wire (7 x 32)
   Reduced EMI
- Wt.: 100' (0.5 lbs.); 1000' (4.7 lbs.) 80C° 300 V

	Cross				Cross		
Part No.	Ref. No.	Color	100 ft.	Part No.	Ref. No.	Color	1000 ft.
105911EX	224GW/C	Green/white	\$5.49	105806EX	224GW/K	Green/white	\$44.95
173147EX	224RW/C	Red/white	5.49	173155EX	224RW/K	Red/white	44.95
173163EX	224BW/C	Black/white	5.49	173171EX	224BW/K	Black/white	44.95



## Solid Hook-Up Wire - 22 AWG

• Temp. range: -55°C to +105°C • Passes UL VW-1 flame test

 MIL-W-16878D type B • Wt.: 100' (0.3 lbs.); 1000' (3.8 lbs.) For use with breadboards such as the JE20 series, pg 46

	Cross				Cross	1	
Part No.	Ref. No.	Color	100 ft.	Part No.	Ref. No.	Color	1000 ft.
36767EX	122BE/C	Blue	\$5.49	36775EX	122BE/K	Blue	\$39.99
36791EX	122BK/C	Black	5.49	36804EX	122BK/K	Black	39.99
36821EX	122G/C	Green	5.49	36839EX	122G/K	Green	39.99
36855EX	122R/C	Red	5.49	36863EX	122R/K	Red	39.99
36880EX	122W/C	White	5.49	36898EX	122W/K	White	39.99
36919EX	122Y/C	Yellow	5.49	36927EX	122Y/K	Yellow	39.99

#### Stranded Hook-Up Wire – 20/22 AWG 300 Volts

• 80°C • PVC insulation • CSA: TR-64 • UL style: 1007 Temperature range: -40°C to +80°C Sold in 100' rolls

Part No. Cross Ref. No. AWG Strands (No. x AWG) Color Wt. (lbs.) 126084EX 223SBK/C 7 x 30 Black 0.4 .... \$3.39 \$2.99 126033EX 223SR/C 22 7 x 30 Red 0.4 ..... 3.39 2.99 126076EX 223SW/C White 22 7 x 30 0.4 ..... 3.39 2 99 125840EX 203SBK/C 20 10 x 30 Black 0.6 ..... 4.95 4.49 125794EX 203SR/C 0.5 ..... 4.95 4.49 20 10 x 30 Red 125831EX 203SW/C 20 10 x 30 White 0.5 ...... 4.95 4.49 125786FX 183SBK/C 0.8 ..... 5.79 18 16 x 30 Black 5.25 125735EX 183SR/C 18 16 x 30 Red 0.8 ..... 5.79 5.25

#### Kynar<sup>™</sup> Wire Wrap Wire – 30 AWG

- Assorted color coded insulation · Used for prototyping
- Color coded Kynar™ (Polyvindene Fluoride) insulation Silver plated copper (solid conductor)
   UL 1423
- Temperature: -40°C to +125°C

Wire wrap tools, see web
 Passes UL VW-1 flame test

Part No.	Color	Wt. (lbs.)	100 ft.	Part No.	Color	Wt. (lbs.)	100 ft.
22541EX	Blue	0.1	\$4.95	22664EX	White	0.1	\$4.95
22576EX	Black	0.1	4.95	22605EX	Green	0.1	4.95
22630EX	Red	0.1	4.95	22699EX	Yellow	0.1	4.95

# **Programmers**

#### Flash Writer/Programmer with USB Interface

- Programs 8-bit FLASH serial ICs via USB cable on Windows® 9x/2000/XP High speed: Only 22
- seconds to blank check, program, and verify MXIC MX29F040
- File formats supported: binary and machine code, Intel HEX, Motorola HEX, Tektronix
- Type, read, load, edit, checksum, erase, blank check, program, verify, protect functions
- Includes: USB cable, 12V @ 500mA adapter, CD-ROM software and manual

Part No.	Description	1	5
225947EX	Leaper 3D	\$199.95	\$179.95

For XELTEK Programmers see our website.

#### 512k E(E)PROM / Flash Programmer **USB Interface**

- Programs EPROMs 27C/LV (64 080); EEPROMs 28C (256-040): Flash EPROMs 29C(256-040) / 29EE/LE (512-020)/28F(256-020A)/ 29F(010-040) & more
- 2 sockets for master/slave operation
- · Stand-alone mode uses two 9V batteries
- Adjustable IC parameters, such as programming algorithm, Vpp voltage, & pulse width
- Supports file formats binary & machine code, INTEL HEX, Motorola HEX
- Supports Windows® 95/98/NT/2000/ME/XP
- Size: 6.3"L x 4.3"W x 1.8"H

Includes: USB cable, 12VDC @ 500mA power adapter: and CD-ROM

Part No.	Description	1	
220636EX	Leaper-3C	\$275.95	\$249.9

# **EPROM Erasers and Accessories**

· Erases 1 chip in 7 minutes

66042EX:

- Conductive foam liner eliminates static build-up
- UV intensity: 6.5mW/cm²
- 6.8"L x 1.5"W x 2.3"H · Weight: 0.8 lbs.
- · One-year warranty

Requires: Four AA batteries (not included) 15712EX:

· Erases 1 chip in 15 minutes or 8 chips in 21 minutes

UV intensity: 6.8mW/cm²

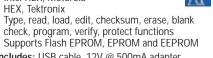
Maintains constant

exposure distance of 1"

Conductive foam liner eliminates static build-up

- · Built-in safety lock to prevent UV exposure Complete with holding tray for 8 chips
- Size: 9.0"L x 3.7"W x 2.6"H
   Weight: 2.3 lbs.

Part No.	Description 1	5
66042EX	Portable eraser\$54.95	\$49.95
15712EX	8-chip eraser 119.95	109.95
34382EX	Lamp for P/N 15712 39.95	39.95
13864EX	Foam (12"x24"x0.25") 9.29	8.35





FUNCTIONS

Stand Alone Mode

PC-Based Mode

Program

- Erase

Read

Functions - Verify -Program - Blank check

Blank check - Verify

Disk

Tell us about products you would like us to offer. Send requests to: AtHome@Jameco.com



66042EX



# COLOR CODE LEGEND... NEW SALE REFURBISHED CLOSEOUT

132661EX

#### micro Engineering Rabs

#### · High quality blank prototyping boards for PICmicro microcontrollers

 Holds microcontroller, 5V regulator, oscillator, capacitors and DB9-25 connector

 Double-sided board with plated-through holes

# "PICProto" Prototyping Boards



132644EX 176891EX 132636EX Includes: Documentation sheet with schematic, suggested parts and placement PICProto 18, 18L: For all 18-pin PICs including PIC16C52, 54, 56, 58, 554, 558, 61, 620, 621, 622, 71, 710, 711, 712, 715, 716, 84, 16CE623, 624, 625, 16F627,

628, 83, ar	nd 84			•
Part No.	Description	Size (L" x W")	1	10
132644EX	PICProto 18	3.0 x 1.5	\$9.95	\$8.95
17/001EV	DICD+- 101	2 / / 1	10.05	17.05

176891EX	PICProto 18L	3.6 x 4.1	19.95	17.95
	: For the 28-pin PIC 376, 18C242, and 2	C16C62, 63, 642, 66, 72, 52	76, 773, 16F73, 76,	870,

132636EX PICProto 3 3.0 x 3.0 ......\$14.95 PICProto 64: For the 40-pin PIC16C64, 65, 662, 67, 74, 77, 774, 16F74, 77, 871, 874, 18C422, and 452

132652EX PICProto 64 4.0 x 3.0 ...... \$16.95

#### micro Engineering Rabs **EPIC Plus PICmicro Programmer**

The EPIC Plus Programmer quickly and easily programs the PIC12Cxxx, 12CExxx, 16C505, 16C55x, 6xx, 7xx, 84, 9xx, 16CE62x, 16F62X, 7x, 8x, 87x, 14C000, 17C7xx, 18Cxxx microcontrollers from Microchip. The basic programmer includes an 18-pin socket for programming 8, 14 and 18-pin PICmicro MCUs.



· Command line operation for automated, non-interactive programming

Requires: Two 9V batteries or AC adapter (below) Includes: Assembler software

Part No.	Description	1	10
132679EX	EPIC Plus PICmicro programmer	\$59.95	\$53.95
136397EX	8/18/20-pin ZIF adapter	34.95	31.95
132610EX	40/28-pin ZIF adapter	34.95	31.95
162317EX	AC wall adapter (16VDC/500mA, details on pg 24)	7.95	6.95
67256EX	6' DB25 cable (details on pg 80)	6.45	5.79

#### micro Engineering Rabs

#### PICBasic and PICBasic Pro Compiler

Converts your BASIC programs into files that can be programmed directly into a PICmicro MCU.

- Compatible with most PICmicro MCU programmers including EPIC plus
- I2C instructions to access external serial EEPROMs
- · Use in DOS or Windows (includes Windows editor/DE software) 132661EX: PICBasic Compiler

Expanded BASIC Stamp I compatible instruction set

Supports PC12C67x, PIC14Cxxx, PIC16C55x, 66x, 7xx,84, 92x, and PIC16CF8xx microcontrollers • May use up to 2k of code space 150543EX: PICBasic Pro Compiler

· Direct and library routine access to any pin or register

Automation page boundary handling past 2k
 Bit, byte, word arrays

 Real If...Then...Else...Endif · Hierarchical expression handling

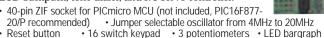
 MPLAB/MPASM/ICE compatibility Built-in LCD support

 Supports 12C5xx, 12C67x, 12CE67x, 14C000, 16C5x, 16C55x, 6xx, 7xx, 84, 92x, 16CE62x, 16F62x, 7x, 8x, 87x, 17Cxxx, and 18Cxxx microcontrollers

Part No.	Description	10
132661EX	PICBasic compiler\$99.95	\$89.95
150543EX	PICBasic Pro compiler	224.95

#### micro Engineering Rabs LAB-X1 Experimenter's Module Board

A pre-assembled experimenter's platform, providing an assembled testbed containing the circuitry commonly used with PICmicro microcontrollers. Projects may be created using the LAB-X1, including calculator, voltmeter, LCD backpack, tone dialer, and RC servo controller.



2 lines x 20 characters LCD module Speaker
 2 RC servo connectors

RS232 interface • Socket for RS485 interface (device not included)

· Socket for real time clock/serial analog to digital converter (devices not included)

• EPIC in-circuit programming connector • Prototyping area for additional circuit

· Wiring for microchip in-circuit debug connector

Requires: AC adapter (below)

Part No.	Description	10
169113EX	LAB-X1 Experimenter Board\$199.95	\$189.95
176882EX	PIC16F877-20/P microcontroller	8.49
127976EX	AC adapter (details on web)	4.29

# Circuit Boards and Accessories

#### Photo Etch™ Printed Circuit Kit

Generate vour own 1:1 artwork. Then use the patented Fast Neg film process to make a photo negative and sensitize and expose a blank copper board. Finish by developing &



etching. No camera or darkroom is required.

Part No.	Product No.	Wt. (lbs.) 1	10
16731EX	12-750 <b>*</b>	4.6 <b>\$39.95</b>	\$36.95

# **Direct Etch PCB** "Starter" Set



0.7 ...... \$11.95

\$10.95

## **Dry Concentrated Etchant**



## DATAK

#### Pre-Sensitized Circuit **Boards & Developer** · Pre-coated



4.0"W x 1	/16"1	-	diam'r.
Includes: In	nstructions /	_	-
Part No.	Description	1	10
156751EX	Single sided	\$4.95	\$4.49
156742EX	Double sided	6.49	5.85
156734EX	4 oz. Pos. developer*	6.95	5.95
*			

Hazardous material. UPS ground to continental U.S. only

#### Acid Brush

· Used for application of reactive solvents Part No. Description 153322EX Metal handle, 6" ..... \$.65



Fig. 1

# Copper-Plated Blank Circuit Boards

Ideal for hobbyists and students doing prototypes of circuits. Copper plating on board for either single-sided or double-sided boards.

1 6mm thickness

1.0Hill thekiess							
Part No.	Mfr. Cross Ref. No.	Description	Size (L" x W")	Fig.	Wt. (lbs.)	1	10
169279EX	PCBS3X6	Single side	3.0 x 6.0	3	0.1	\$3.49	\$3.15
169287EX	PCBS6X6	Single side	6.0 x 6.0	2	0.2	4.95	4.49
169295EX	PCBS12X12	Single side	12.0 x 12.0	1	0.5	13.49	12.14
169308EX	PCBD3X6	Double side	3.0 x 6.0	3	0.1	5.25	4.73
169316EX	PCBD6X6	Double side	6.0 x 6.0	2	0.2	7.95	7.15
169324EX	PCBD12X12	Double side	12.0 x 12.0	1	0.7	17.95	15.95

Fig. 2 Fig. 3

70412FX



#### General Purpose Prototyping Boards

Select the prototype board that fits your needs from our comprehensive product listing. Prototyping boards with punched holes are convenient, economical tools for assembling circuit components and trying cost-effective alternatives to custom designs.

- · 0.062" board thickness
- · 0.1" hole spacing
- 0.08" pad size
- · Plated through pads are double-sided
- PCB material epoxy glass
- Connector I/O or edge: None

See pg 47 for PCB mounting enclosures and hardware (recommend P/N 106551EX)

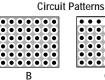




**Board Outline** 



Holes Only



Pad Per Hole

21477EX





Power/Ground Perimeter 3 Hole Solder Pad Bus with Pad Per Hole and Bus

Part	Product	Size	Fits Enclosure(s)	Circuit	Hole	# Holes	Power/Ground	# Mounting	Weight	Prici	ng
Number	Number	(W" x L")	(see page 41)	Pattern	Pads	x Dia. †	Busses	Holes x Dia.	(lbs.)	1	10
105099EX	2855PCB	1.60 x 2.70	18921EX	В	Single-sided	288 x .035"	None	2 x .115"	.02	\$5.25	\$4.73
105101EX	5002PCB	1.50 x 3.50	11957EX	С	Single-sided	365 x .038"	4	2 x .140"	.02	6.95	6.25
28177EX	PCB1	2.42 x 4.10	18913EX	С	Plated through	674 x .040"	None	4 x .120"	.04	5.95	5.35
105136EX	2320PCB	3.30 x 4.50	11885EX	С	Single-sided	1266 x .035"	4	4 x .140"	.06	9.95	8.95
105161EX	2852PCB	3.60 x 7.00	18905EX, 11973EX	В	Single-sided	2225 x .035"	4	4 x .140"	.10	14.95	13.45
21434EX	JE401(8001)	4.50 x 6.50	18868EX	B/D	Single-sided	2360 x .042"	2	None	.12	21.95	19.76
21451EX	JE405(8003)	4.50 x 6.50	18868EX	С	Single-sided	2360 x .042"	1	None	.12	19.95	17.95
21477EX	JE407(8006)	5.00 x 13.25	N/A	В	Plated through	6063 x .038"	None	8 x .120"	.28	41.19	37.07
105187EX	2507PCB	6.10 x 8.80	18876EX	С	Single-sided	4771 x .035"	7	8 x .140"	.21	29.95	26.95
37621EX	169P84WE	8.50 x 17.0	N/A	А	Drilled only	14448 x .042"	None	None	.53	23.95	22.75

<sup>†</sup> All 0.042" diameter hole boards use terminals T44, T49, and T421 (see website)

# Hardware, Cabinet and Boxes

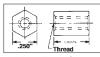
# Hex.187"/.250" Female

Aluminum & Brass Threaded Standoffs

† Finish: Iridite (clear)1 per MIL-C-5541-D \* Prepackaged: order in increments of 10







250" Hex Female

.250" Hex Female 4-40 Thread .250" Hex

Part No.	Metal <sup>†</sup>	Hex Length	1	10
139192EX Alum <sup>1</sup>		.250"	*	\$.16
77500EX	Alum¹	.375"	*	.20
134762EX	Alum¹	.437"	*	.21
108370EX	Alum¹	.500"	*	.25
77518EX	Alum¹	.625"	.42	.35
133604EX	Alum <sup>1</sup>	.750"	.39	.35

#### **SAE Hardware**

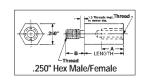
· Zinc-plated steel



Slotted Pan Head Machine Screws

<b>3</b>		H	lex Nut	S	<b>3</b>
40951EX	4-40	Std	.250	.019	.011
38172EX	2-56	Std	.250	\$.025	\$.022
Number	Size	IIIIeau	(in.)	100	1000
Part	Screw	Thread	Lengin	100 piec	e miliminum

0		•			
38164EX	2-56	Std	.183	\$.022	\$.014
40942EX	4-40	Std	.243	.025	.013



.250" Hex Male/Female 4-40 Thread (Thread A: .250"; B: .187")

Part No.	Metal <sup>T</sup>	Hex Length	1	10
111755EX	Alum¹	.500"	\$.49	\$.44
139221EX	Alum <sup>1</sup>	.750"	.43	.39
128565EX	Alum <sup>1</sup>	1.25"	.59	.53

#### .187 Hex Male/Female

4-40 x . 187" Jack Screws and Hex Nut





169931EX/172603EX/102816EX

108986FX

Part No.	Description (Brass)	1	10
169931EX	.275"L jack screws	*	\$.15
172603EX	.315"L jack screws	*	.14
102816EX	.435"L jack screws	.49	.46
108986EX	.515"L jack screws	.55	.50

# **Plastic Fliptop Case for SMDs**

128 Compartments for Surface Mount Components

- 8 rows x 16 columns grid
- · Padded cover locks bins closed
- · Fliptop openings on each bin

Part No.	Description	Size	1	10
164267EX	SMD fliptop case	11.0"L x 8.3"W x 1.7"T	\$49.95	\$44.99





Includes labels for each bin

#### **Component Cabinet**





Drawer (85454EX) Divider (85446EX)

• Drawer can be divided into 4 sections (clear)

- · Wall mountable cabinet (ABS black)
- Cabinet size: 6.0"D x 15"W x 7.9"H
- Drawer size: 5.5"L x 2.7"W x 1.5"H
- Divider size: 2.4"L x 1.1"H · Weight: 4.7 lbs.

Includes: 20 clear plastic drawers, 20 dividers and 30 adhesive I.D. labels

\* Prepackaged: order in increments of 10

Part No.	Description 1	10
81701EX	Component cabinet \$15.95	\$13.95
85454EX	Drawer for cabinet39	.35
85446EX	Divider for drawer *	.19

# **Bug Boxes**

· Anti-static plastic

• Fits in bug cage (P/N 11332EX, see web)



• 11341EX: stores sixty 8-pin or thirty 16-pin DIPs

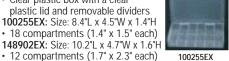
- 11375EX: Designed to store all types of components

· 6 ea. vertical & horizontal dividers

Part No.	Description 1	10
11341EX	30 compartments \$3.95	\$3.49
11375EX	3 compartments 3.95	3.56

#### Plastic Fliptop Boxes

 Clear plastic box with a clear plastic lid and removable dividers 100255EX: Size: 8.4"L x 4.5"W x 1.4"H • 18 compartments (1.4" x 1.5" each)



100255EX

Part No.	Description	1	10
100255EX	18 compartments	\$2.25	\$1.95
148902EX	12 compartments	3.95	3.49



#### Solderless Breadboards











These long-lasting solderless breadboards feature screen-printed color coordinates suitable for many types of digital and analog prototyping and circuit design. Larger models feature a heavy-duty aluminum backing with binding posts. Use Jameco's AC/DC breadboard power supply, P/N 77681EX (bottom right).

· Accepts most electronic components, including integrated circuits and transistors for digital and/or analog circuitry • 0.1" hole spacing

- Pins are identified by numbered rows and columns · Ideal for high frequency and low noise circuits
- Low static, plastic body CMOS safe Use to breadboard and debug circuit designs · Nickel-plated clips designed to withstand up to 5,000 insertion cycles
- Breadboard strips connect together to form larger working areas
   One-year warranty
- Components are easily interconnected using 20-28 AWG wire (P/N 19289EX & 20079EX, right)
- · Some models feature heavy-duty aluminum backings (JE24, JE27)

Attention	Educator	rs! Buy j	jumper	wire (ri	ght) i	n bul	k an	d SAVE!	(see	e Hook-up Wi	re on pg 43)

Part	Product	Terminal	Bus	Contact	Binding	Breadboard	Baseplate	Weight	Pric	cing
Number	Number	Strips	Strips	Points	Posts	Size L x W (In.)	Size L x W (In.)	(lbs.)	1	10
20600EX	JE21	1	2	400	0	3.3 x 2.1	_	0.13	\$5.25	\$4.73
20669EX	JE22	1	0	630	0	6.5 x 1.4	_	0.20	5.49	4.95
20722EX	JE23	1	2	830	0	6.5 x 4.0	6.5 x 2.1	0.30	9.39	8.45
194271EX	JE34	2	3	1,560	3	6.5 x 4.0	8.5 x 4.7	0.78	15.95	14.39
20757EX	JE24	2	1	1,360	2	6.5 x 3.1	8.5 x 4.0	0.60	13.65	12.28
20773EX	JE25	2	4	1,660	3	6.5 x 4.3	8.5 x 5.1	0.80	19.95	17.95
20790EX	JE26	3	5	2,390	4	6.9 x 5.8	9.1 x 6.9	1.10	27.29	24.56
20811EX	JE27	4	7	3,220	4	7.3 x 7.5	9.5 x 8.3	1.40	33.59	30.23

#### Digital Design Lab · One-year warranty

Two 7-Segment Displays (digit height: 0.3")

#### Solderless Breadboard

 Interconnected nickel-plated tie points, fitting all DIP sizes and all components with AWG #22-30 (0.3-0.8mm) solid leads • 1580 tie points

#### DC Power Supplies

- · DC supplies equipped with short circuit protection
- Variable DC power: 0 to +15V & 0 to -15V @ 0.5A
- Fixed power supply: ±5VDC @ 1.0A

#### Function Generator (5 ranges)

- Frequency range: 1Hz-10Hz, 10Hz-100Hz, 100Hz-1kHz, 1kHz-10kHz, 10kHz-100kHz
- Sine wave output: 0–8 Vp-p variable Square wave output: ±5V fixed Includes: Power cord and manual
- · Triangle wave output: 6Vp-p fixed

International

115/220VAC

Switchable

DCV digital multimeter

#### Our most popular digital lab!

International

120/220VAC

Switchable

Part No.	Description	Size (W" x D" x H")	Weight (lbs.)	Price
75838EX	Digital lab	10.6 x 13.3 x 5.0	8.1	\$276.95

# Digital-Analog Design Lab

#### Solderless Breadboard

· 2712 interconnected nickel-plated tie points, fitting all DIP sizes and all components with AWG #22-30 (0.3-0.8mm) solid leads

#### **DC Power Supplies**

 Variable DC output: 0 to +15V & 0 to -15V @ 500mA; Fixed DC output: +5VDC@1A; -5VDC@300mA • Input power: 120/220VAC @ 50-60Hz (switchable)

- Frequency ranges: 1Hz-10Hz, 10Hz-100Hz, 100Hz-1kHz, 1kHz-10kHz, 10kHz-100kHz
- Sine wave output: 0-8 Vpp variable Triangle wave output: 0-6 Vpp variable
- Square wave output: 0–8 Vpp variable

#### Other features:

- 2 variable resistors: VR1=1kΩ, VR2=100kΩ
   8 data switches
   2.5" dia. 8Ω, 25W speaker
- 2 pulse switches (2 sets of outputs: Ā, A, Ā, B, B)
   Two 7-segment LED displays (digit height: 0.3")
   2 banana sockets, 2 BNC jacks
   One-year warranty
   8 red LEDs with separate input terminals

#### Includes: Power cord and manual

Part No.	Description	Size (W" x D" x H")	Weight (lbs.)	Price
136266EX	Digital-analog lab	12.8 x 9.8 x 3.7	8.5	\$379.95

#### **PLCC Prototype Adapters**

- · PCB construction
- · Silkscreen numbers identify pin numbers in groups of 5 and 10
- Gold-plated round pins
- Tin-plated PLCC connector
- PLCC socket identifies pin 1 and orientation key
- · PLCC socket slotted for PLCC chip remover

Part No.	Pins	Size (L x W)	1	10
73550EX	68	3.4" x 1.6"	\$15.95	\$14.49

#### Wire Jumper Kit (350 pcs.)

- 25 each of lengths 0.1" through 5.0" (14 sizes)
- 350 assorted lengths in 13 colors
- · Pre-stripped/preformed 22 AWG solid wire jumpers



19289EX: 350-piece wire jumper kit · Handy, durable, clear plastic case

20079EX: 350-piece refill only for 19289EX

Part No.	Description 1	10
19289EX	Wire jumper kit \$15.95	\$14.39
20079EX	Refill for 19289EX 10.99	9.89

### **Reinforced Jumper Wires**

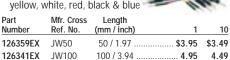
24 AWG-300 volts

Part

126324EX

- · Reinforced pin ends for durability
- · 10 pack assortment: 2 each yellow, white, red, black & blue

JW200



200 / 7.87 ..... 5.19

# AC/DC Power Supply



Output Specifications: +5VDC @ 1A; -5V @ 300mA fixed; 0 to +15VDC @ 500mA variable, 0 to - 15VDC @ 300mA variable; 12-6-0-6-12 tapped VAC, 300mA fixed

#### International 120/220VAC Switchable

- Input power: 120/220VAC @ 50-60Hz (switchable)
- Indicator lamps and power fuses
- Compact and lightweight Plug and use
- For both digital and analog circuits Color: beige Compatible with test leads P/N 77841EX, pg 58
- Size: 7.4"W x 5.5"D x 2.6"H · Weight: 5.5 lbs.

Description

i ditito.	Description	11100
77681EX	Power supply	. \$119.95

#### **Powered Project Board** · Solderless breadboard

- with 2420 tie points
- DC power supplies: +5V @ 1A; variable power 0 to +15VDC and 0 to -15VDC @ 500mA
- · Back panel has ground terminal



- · Outputs are short-circuit protected
- · Edge plate for non-DIP size components
- Input power: 120/220VAC @ 50-60Hz (switchable)
- · Replacement fuse: P/N 103907EX, pg 32
- Breadboard size: 7.4"L x 6.8"W
- Enclosure size: 9.8"L x 8.0"W x 2.6"H Wt.: 6.8 lbs.

Includes: Power cord

Part No.	Description	Price
136258EX	Powered breadboard	\$99.95



#### Prototype Builder Boards, Enclosures and Hardware

The prototype builder boards on this page are specifically designed to fit into our ABS speedy boxes, die cast aluminum enclosures, aluminum boxes, metal cabinets and heavy-duty instrument cases shown in each grouping. These pre-cut boards have 2 or 4 mounting holes compatible with the PC board mounting hardware listed at the bottom, right (P/N 106551EX).

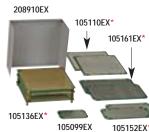
Board description: laminated glass epoxy 1/16' thick fire retardant per FR-4 specs. Copper-clad and solder mask one side. Drilled holes: .035" diameter on .080" square pad. Pads spaced on .10" x .10" grid.











Call for additional OEM pricing.

See website for hardware and knobs and more printed circuit board details

#### **ABS Speedy Enclosures**

Will not crack or split when drilled or punched. PCB mounting slots on all four sides. Lid has a lip for precision fit (adds 0.4" height). Complete with four screws and lid. All sizes below are for interior dimensions. • Color: black • ABS plastic



Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10
18921EX	H2855	3.1" x 2.0" x 0.9"	0.1	\$3.15	\$2.84
18913EX	H2853	4.9" x 2.5" x 1.5"	0.2	3.69	3.32
18892EX	H2851	6.0" x 3.5" x 1.9"	0.4	4.79	4.31
18905EX	H2852	7.5" x 4.3" x 2.3"	0.5	6.89	6.20

#### Printed Circuit Boards for Above Enclosures

· Power/ground, perimeter bus with pad per hole (\*except P/N 105099EX) • Plated one side holes



٠ .	,		-	
Product No.	Size (L x W)	No. of Holes	1	10
2855PCB	2.7" x 1.6"	288	\$5.25	\$4.73
2853PCB	4.4" x 2.0"	669	7.95	6.95
2851PCB	5.5" x 3.1"	1450	9.95	8.95
2852PCB	7.0" x 3.6"	2225	14.95	13.45
	2855PCB 2853PCB 2851PCB	2855PCB 2.7" x 1.6" 2853PCB 4.4" x 2.0" 2851PCB 5.5" x 3.1"	2855PCB     2.7" x 1.6"     288	2855PCB       2.7" x 1.6"       288

#### **Metal Enclosures**

Part No.

208901EX

208910EX

208928EX

209357EX

High-quality metal enclosures are made to suit a large variety of electronics projects and applications. The base is made of aluminum. Slots are located on the sides of the cases for maximum cooling. Cases screw together and come with an attractive two-tone finish.

· Mounting screws and rubb

Product No.

B2741A

B2743A

B2744A

B2747A

ber feet included	2009 IUEX	208	3928EX
Size (L x W x D)	Wt. (lbs.)	1	10
4.0" x 3.3" x 2.2"	0.4	. \$6.49	\$5.89
5.9" x 5.3" x 3.0"	0.8	7.99	7.19
7.3" x 6.3" x 2.8"	1.1	8.99	7.99

1.4 ..... 14.99

13.49

#### **Printed Circuit Boards for Above Enclosures**

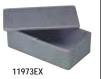
• Power/ground, perimeter bus with pad per hole • Plated one side holes

7.5" x 9.8" x 3.2"

Part No.	Product No.	Size (L x W)	No. of Holes	1	10
105110EX	2741PCB	3.4" x 2.4"	637	\$7.95	\$6.95
206578EX	2743PCB	4.7" x 4.5"	1869	7.49	6.74
105179EX	2744PCB	6.5" x 5.0"	2829	14.95	13.49

#### **Die-Cast Aluminum Enclosures**

High-quality die-cast aluminum cases come with channeled walls for easy PCB mounting. Ideal for RF circuits because the lid forms an effective screen against RFI interference. Made from aluminum, an excellent heat-sink, these cases are great for high temp circuits (up to 600°C). Complete with screws.



Part No.	Product No.	Size (L x W x D)	Wt. (lbs.) 1	10
11957EX	B5002	3.9" x 2.0" x 1.0"	0.2 <b>\$5.95</b>	\$5.39
11965EX	B5004	4.7" x 2.4" x 1.6"	0.4 <b>8.49</b>	7.64
11973EX	B5006	7.5" x 4.3" x 2.4"	1.2 <b>13.95</b>	12.56

#### **Printed Circuit Boards for Above Enclosures**

· Power/ground, perimeter bus with pad per hole

· Plated one side holes



Part No.	Product No.	Size (L x W)	No. of Holes 1	10
105101EX	5002PCB	3.5" x 1.5"	365 <b>\$6.95</b>	\$6.25
105128EX	5004PCB	4.4" x 2.0"	669 <b>7.95</b>	6.95
105161EX	5006PCB	7.0" x 3.6"	2225 <b>14.95</b>	13.45

#### Heavy-Duty Instrument Cases

Both cases split apart for ease of working. Four plastic feet molded on unit. P/N 18876EX includes ventilation and speaker sound slots. · Color: gray



Part No.	IVIII. Cross R	el. No. Size (L x vv x D)	Wt. (IDS.)	l l	10
18868EX	H2505	7.9" x 6.3" x 2.5"	0.8	\$7.89	\$7.10
18876EX	H2507	10.0" x 7.5" x 3.1"	1.4	8.99	7.99

#### **Printed Circuit Boards for Above Instrument Cases**

Power/ground, perimeter bus with pad per hole
 Plated one side holes

Part No.	Product No.	Size (L x W)	Holes	1	10
105179EX	2505PCB	6.5" x 5.0"	2829	\$14.95	\$13.49
105187EX	2507PCB	8.8" x 6.1"	4771	29.95	26.95

#### **Aluminum Enclosures**

Ideal boxes for those projects that get left lying around! Put them in an economical aluminum enclosure. The enclosure comes in two pieces which slide together.



Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10
11869EX	B2300	4.0" x 2.0" x 2.8"	0.2	\$5.45	\$4.69
11885EX	B2320	5.0" x 4.0" x 3.0"	0.4	7.89	6.15
11003EV	B233E	7 N" v 6 2" v 4 6"	0.8	10 05	0.25

#### Pr



637 ..... **\$7.95** 

1266 ...... **9.95** 

2829 ...... 14.95

rinted Circuit Boards for Above Enclosures					
Power/ground, perimeter bus w/ pad per hole Ground Bus  • Plated one side holes					
art No.	Product No.	Size (L x W)	No. of Holes		1

3.4" x 2.4"

4.5" x 3.3"

6.5" x 5.0"

# ABS Enclosures w/ Clear Tops

Made of gray ABS plastic w/ clear polycarbonate top cover. Includes screws for mounting boards or electronic components, rubber gasket for a tight seal on your equipment & drilled holes for mounting.



Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10
141831EX	203C1	4.6" x 3.2" x 1.8"	0.3	\$8.95	\$8.09
141840EX	203D1	6.3" x 3.2" x 1.8"	0.4	9.95	8.99
141858EX	203F1	7.0" x 5.5" x 2.5"	0.8	11.95	10.79

Mounting Hardware for PC Boards		8 8 8	8
<ul> <li>4 spacers</li> </ul>	s, 8 screws and 8 washers	17. A.	+03
Part No.	Description	1	10
106551EX	PC board mounting hardware	\$1.79	\$1.65

#### **Wall Transformer Enclosure**

- Enclosure includes 3-prong power plug & cable strain relief
- Material: noryl Color: black
- Size: 3.4"H x 2.7"W x 2.3"D

Part No.	Style 1	10
115051EX	Non-vented\$2.25	\$1.95





2300PCB

2320PCB

2335PCB

105110EX

105136EX

105179EX



\$6.95

8 95

13.49

# **Heavy Duty Staplers**

Built with all-steel construction with hardened steel working parts. These staplers and cable tackers are designed for the most demanding of environments. The standard stapler is perfect for contractors, home do-it-yourselfers, and specialty trade applications. We also offer the cable tackers that are ideal for a wide variety of applications such as telephone wire, cable TV, hi-fi systems, alarm systems, intercommunications and general electrical contract work. Both are made of durable nickel-plated steel for heavy-duty use. Rubber grip assures comfortable operation.

- Handle locking
- · Easy rear loading
- Adjustable high impact tension knob
- · Easy squeezing action

Standard

Part No.

126543EX

182650EX

182668EX

· Hand stop for safe stapling control

Part No.	Description	Price
227969EX	T-50 staple gun	\$19.95
242878EX	Cable tacker	24.95
242886EX	4-in-1 staple gun	28.95
230295EX	T-50, 5/16", 1250 each	2.45
230308EX	T-50, 3/8", 1250 each	2.75

**Nylon Cable Ties** 

**Dimensions** 

(L" x W")

11.0 x 0.19

Dimensions

(L" x W")

4.0 x 0.10 ..... \$.044

4.0 x 0.10 ..... \$.02

5.5 x 0.13 ...... .035

8.0 x 0.13 ...... .075

126543EX

· Cable ties made from UL approved Nylon 66

Temperature range: -40°C to +85°C

Color: clear (except P/N 182676EX)

· Sold in increments of 100 or 1000

Tensile

Strength (lbs.)

18

18

18

40

to ultra violet rays in outdoor use

· Sold in increments of 100 or 1000

Tensile

Strength (lbs.)

18

40

40

104141EX

· Contain Carbonate A for greater resistance

Weather Resistant

· Color: black

Part No.

104141FX

190781EX

190799EX

190801EX

Flammability rating: UL 94V-2



242878EX

227969EX: Handles 5/16"; 3/8", 1/2", & 9/16" staples, Use T-50 type staples

242878EX: 4.8mm maximum cable diameter, uses P/Ns 244988EX & 245008EX tackers, 1/4" width 242886EX: Handles T-50 staples; T-25 cable tackers; 14mm long pin nails; 12-14mm long brand nails

Part No.	Description	Price
230316EX	T-50, 1/2", 1250 each	\$2.89
230324EX	T-50, 9/16", 1250 each	3.15
244988EX	3/8"L tackers, 1000 each	1.69
245008EX	9/16"L tackers, 1000 each	1.89
245016EX	T-25, 1/2"L tackers, 1000 each	1.89
245032FX	T-25, 9/16"L tackers, 1000 each	2.25

# **Heat Gun/Stripper**

#### **Dual-Setting**

- · Use with heat shrink material · Works with spot-dry paint,
- plaster, spackle cure adhesives
- Will remove adhesive-applied tiles and linoleum without chipping
- Dual heat setting: 600°F/1100°F UL listed
- Thaw pipes, frozen locks and loosen rusted bolts

Part No.	Description	1	10
76865EX	Heat gun	. \$39.95	\$35.95
217816EX	Heat shrink attachment	1.95	1.85

182748EX

182772FX

# **PVC Heat Shrink Tubing**

2:1 uniform

1000

\$.014

.025

.05

.065

.09

.088

**UV Resistant** 

- shrink ratio Color: black
- Shrink temp: 125°C
- Sold in 10' and 100' increments

• UL/CSA	approved	10277227	
Part No.	Dia. before (mm)	10 ft.	100 ft.
184721EX	.12" (3)	\$1.19	\$10.50
182730EX	.16" (4)	1.39	12.50
182748EX	.20" (5)	1.45	13.00
182756EX	.24" (6)	1.49	13.50
182764EX	.31" (8)	1.79	16.00
182772EX	.43" (11)	2.80	19.00
182781EX	.59" (15)	3.50	30.00

# Nylon Cable Tie Mount

- · Screw tab & cradle mount adhesive
- 1.1" square adhesive 4-way cable tie used with 0.2"W max
- · Sold in increments of 10 or 100

Part No.	Description	10	100
71394EX	4-way cable tie	\$.23	\$.19

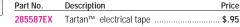
Our complete selection is @ www.Jameco.com

# 3M Tartan 1710 Electrical Tape

3M<sup>™</sup> Tartan<sup>™</sup> 1710 Vinyl Insulating Tape offers good resistance to abrasion, moisture, alkalis, acid, copper corrosion and varying weather conditions



 UL listed Flame retardant
 Length: 60'





Take your shop with you wherever you work! This tough and economical set of cordless rechargeable tools puts home-improvement power in your hands in a hurry. The kit comes with two interchangeable 14.4V batteries and a quick charger so you never run out of power. Everything is contained in one convenient case so you won't forget one of your essential tools. Specifications:

- Drill/driver—Variable speed reversing with a 3/8" keyless chuck, a 16 position clutch, metal gears, and bronze bushings.
- Detail sander—Triangle shaped for sanding in small and difficult-to-reach places. Counterbalanced drive shaft with ball-bearing support.
- Jigsaw—Adjustable base plate, 0.5" stroke, and 1750 SPM operation
- · Flashlight—Has adjustable head so you can direct the beam where you really need it.

Part No.	Description	Price
235504EX	14.4 volt tool kit	Was \$79.95 \$69.95

# Magnetizer / Demagnetizer

Magnetize tips of screwdrivers for easy pick-up of small metal objects; demagnetize tips to prevent electrostatic discharge that will damage electronic components.



Size: 2.0"L x 2.0"W x 1.2"D

Part No.	Description	Price
239530EX	Magnetizer/Demagnetizer	\$6.99

# 3M Super 33+ Electrical Tape

This tape provides flexibility and easy handling for all around performance. It combines PVC backing with excellent electrical insulating properties to provide primary



electrical insulation for splices up to 600V and protective jacketing. Excellent resistance to UV rays, abrasion, moisture, copper corrosion, alkalis and acids, and is flame-retardant. Excellent all-weather performance in cold to 0°F (-18°C) and is designed to perform in a continuous temperature environment up to 220°F (105°C).

UL listed and CSA certified Length: 66'

Part No.	Description	Price
285464EX	Electrical tape	\$4.35

68410EX

168583EX



#### **Fume Extractor and Filters**

Absorbs noxious lead fumes using activatedcarbon filter and a high-efficiency fan

- · Air flow: 115 CFM
- · Operate continuously providing filtered air
- · Compact size allows use on work bench with minimum space
- 22 watt, 120VAC @ 60Hz
- · Noise: 49dB fan
- · Fuse protected
- Static ground jack
- On/off power switch Aerodynamic hood
- design for effective removal of solder fumes
- 120150EX Removable carbon impregnated filter
- · One-year warranty
- · Black anodized aluminum case
- Size: 6.4"W x 4.6"D x 7.9"H Weight: 4.6 lbs.

**Includes:** Detachable power cord

Part No.	Description	1	10
120150EX	Fume extractor\$	58.95	\$52.95
127183EX	Replace. filters (2/pk)	12.95	11.66

# Weller 40-Watt Soldering Station

- · Lighted on/off switch
- Adjustable power from 5 watts to 40 watts
- 40 watt,120V @ 60Hz
- Temperature is electronically controlled from 350° to 850°F
- Size: 5.5"L x 4.5"W x 3.5"H · Weight: 1.9 lbs.

Includes: ST3 1/8" screwdriver tip, soldering station and manual

Part No.	Prod. No.	Description	1	10
146595EX	WLC100	Soldering station	\$48.95	\$44.09

#### Weller **Soldering Tips**

Replacement Tips for WLC100, WP25 & WP23

				-
146608	EX	146616EX	14662	4EX
Part No.	Prod. No.	Description	1	10
146608EX	ST1	Screwdrvr tip 1/16"	\$5.95	\$5.35
146616EX	ST3	Screwdrvr tip 1/8"	5.95	5.35
192145EX	ST6	Scrwdrvr tip .031"	5.25	4.75
146624EX	ST7	Conical tip 1/32"	5.95	4.95

Discover what you are looking for @ www.Jameco.com

More Soldering Equipment on our website.

# Weller Analog Soldering Station

- Innovative heater and sensor combination for quick heat-up and rapid temperature recovery
- Tip temperature offset capability which allows user to reset temperature readings to match tip size and style
- Wireless temperature lockout
- · Auto power down after 90 minutes of inactivity
- Temperature range: 350°F to 850°F (177°C 454°C)
- Temp. accuracy: ±90°F (±5°C) ESD safe
- · Weight: 4.0 lbs. Size: 5.9"L x 4.5"W x 3.6"H Product No. Part No. 1

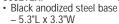
217461EX WES51 ..... \$115.95 \$105.95



#### 16 to 30-Watt Variable Soldering Iron, Stand & Sponge

116572EX:

 Lenath: 7.5" 36329EX:



 See below for replacement sponge (P/N 134631EX)

Fits most soldering irons .85" diameter Includes: Sponge



Part No.	Description	1	10
116572EX	Soldering iron	\$16.95	\$15.29
36329EX	Soldering stand	4.95	4.46
134631EX	Sponge (for 36329EX)	2.99	2.69

# Weller°

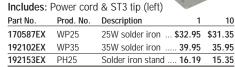
#### Professional 25-Watt & 35-Watt Soldering Irons

170587EX

192153EX

- Interchangeable heater elements
- Lightweight handle with cushioned grip
- · Quick change knurled collar

Length: 9" • 120VAC @ 60Hz





#### Economical, High-**Performance Soldering Irons**

High-quality soldering irons that are suitable for both professional and do-it-yourself applications.



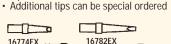
- 120VAC; 6' cord with 3-prong plug
- 226000EX (chisel, std.); 226018EX (conical, opt.) tips for 224602EX
- 226026EX (chisel, std.); 226034EX (conical opt.) tips for 195223EX

Part No.	Product No. 1	10
224602EX	200PHG-40W\$9.95	\$8.95
195223EX	200PHG-60W 13.95	12.49
226000EX	44-240517 <b>.95</b>	.85
226018EX	44-240513 <b>.95</b>	.85
226026EX	44-240617 <b>1.95</b>	1.79
226034EX	44-240603 1.95	1.79

#### Weller° **Soldering Tips**

#### Replacement Tips for WES51

- · Tip leakage: less than 2mV
- Tip to ground resistance: less than 2Ω
- Tips also used with WCC100 station





Part No.	Prod. No.	Description	1	10
16774EX	ETA	Screwdriver 1/16" \$	6.95	\$6.25
16782EX	ETJ	Long screwdriver 1/32"	6.95	6.25
16803EX	ETR	Narrow scrwdrvr 1/16"	6.95	6.25
16811EX	ETS	Long conical 1/64"	6.95	6.25

#### SMD Tweezer Iron

- Maximum efficiency ceramic heating elements insures rapid heat-up and instant heat recovery
- Max. temp.: 760°F
- 120VAC
- Heater insulation exceeds  $100M\Omega$
- Heater power consumption: 35W x 2

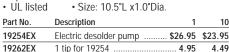
Includes: 0.095" tip

Part No.	Description 1	10
168410EX	Tweezer iron \$59.95	\$53.95
168583EX	Tip .078" 11.95	10.79
168591EX	Tip .590" <b>12.95</b>	11.69

#### **Electric Desolder Pump**

- · Easily disassembled for cleaning
- One-hand operation
- Replacement tips available





#### One-Shot Desoldering Gun

This low maintenance desoldering gun with self-contained vacuum pump is perfect for desoldering throughhole components.

- Power consumption: 60W
- · Interchangeable standard tips
- · Zero statič tip, 3 wire grounded
- Sensitive where CMOS protection is needed
- Quick release stainless solder collector
- Electronic temperature control 120VAC
- Ergonomic, lightweight design One-year warranty • Gun casing size: 7.0"L x 4.0"W • Weight: 2.2 lbs.
- Includes: 1.0mm tip

Part No.	Description	1	10
129066EX	Desolder gun	. \$99.95	\$89.95
140214EX	"Y" replacement tip	10.95	9.95
134594EX	1.0mm replacement tip	8.95	7.95
134607EX	1.2mm replacement tip	8.95	7.95

#### PANAVISE Electronic Work Center

- · Circuit board holder. standard base, tray base mount, solder station, sponges and wire holder included
- Size: 8.5"W x 7.8"H
- · Weight: 5.3 lbs.

One-year warranty

Part No. Description 27060EX Electronic center .... \$74.95 \$71.25 \$66.95

# Third Hand

- · Frees hands for soldering Two adjustable arms with
- alligator clip jaws 2" diameter magnifying lens
- · Quick and easy rotation · Sturdy, heavy base
- Weight: P/N 26690EX: 0.7 lbs.; P/N 72864EX: 1.4 lbs.

Part No.	Description 1	10
26690EX	Third hand \$5.95	\$5.35
72864EX	W/ soldering holder 7.95	7.19





#### WAHL® Cordless Soldering Iron

The #1 choice for field service soldering! IsoTip® Power Pro Model #7904

• 900°F tip temperature

· LED indicator light

Iron performance equivalentto 25-watt iron

· Solders 200+ joints or up to 30 minutes of continuous soldering

Includes: Soldering iron, recharging stand, NiCad battery pack, & tips Part No. Description Weight 10 132783EX 1.1 lbs. ..... Power Pro cordless iron \$61.95 \$58.85

## Weller Cordless Soldering Iron Kit

152207EX PSI-100K

· Self igniting and instant heat

 Auto switch off Visible gas level 2 hours of heat on average tank setting



25W to 125W (adjustable) ...... \$79.95 \$75.95

156777EX

73584FX

(li)

			ise and instruction manua		,
Part No.	Prod. No	Description	Temperature	1	5

## Soldering Tip Cleaner with Stand and Rosin Paste Flux

Tool kit

· For cleaning soldering iron tips without the use of water and sponge

Metal wool for cleaning
 Rubberized base for stability

· Highly active non-corrosive and non-conductive flux with excellent wetting action

Part No.	Description	1	10
156777EX	Tip cleaner & stand	\$4.95	\$4.49
160004EX	Metal wool replacement	. 2.79	2.49
73584EX	Rosin paste flux (2 oz.)	. 1.99	1.89

#### 300-Watt Solder Pot

#### Temperature Regulated between 420 - 450°C

- · HI/LO switch selectable for temperature
- · 2 conductor power cord; 5' 9" long
- Holds up to one 1.1 lbs. solder bar Input voltage: 110VAC @ 2.7A; 50-60Hz
- Size: (unit) 4.8"H x 5.5" Dia. (base)

Part No.	Description	1	10
160303EX	300W solder pot	\$64.95	\$58.49



# · Simple fine tune feature to select

60-Watt Desoldering Station

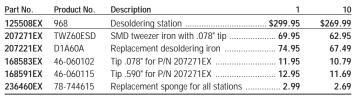
within 300-850°F range

Vacuum pump activated "on demand" using finger tip switch on desolder handle CMOS devices protected against voltage spikes

Size: 9.2"L x 7.2"W x 3.6"H

· Weight: 13.1 lbs.

Includes: XYD12 tip and solder holder



Special! 5% **Bundle Savings** 

Complete ISO 9000 digital station P/N 236101EX & 125508EX Sold separately \$409.90 Combined: P/N 207263EX \$388.95

### 60-Watt Digital & Analog **Display Soldering Stations**

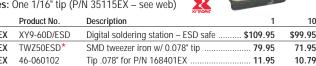
Designed for soldering situations where precise temperature is required for sensitive components.

- · Temperature is maintained at ±6°F
- External calibration port

Part No.

- Electronic temperature control from 392° to 878°F
- CMOS devices protected against voltage spikes
- Power-on and heater-on LED indicators
- Size: 5.1"W x 8.0"D x 4.0"H
   Weight: 4.8 lbs.

Includes: One 1/16" tip (P/N 35115EX - see web)



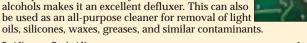
236101EX	XY9-60D/ESD	Digital soldering station – ESD safe \$109.95	\$99.95
168401EX	TWZ50ESD*	SMD tweezer iron w/ 0.078" tip 79.95	71.95
168583EX	46-060102	Tip .078" for P/N 168401EX 11.95	10.79
168591EX	46-060115	Tip .590" for P/N 168401EX 12.95	11.69
236460EX	78-744615	Replacement sponge for both stations 2.99	2.69

# Repair broken traces in 3 easy steps!

· Safe on plastics EPA SNAP approved, no CFCs or HCFCs

# 1. Flux Remover Pen

A unique combination of hydrocarbon solvents and alcohols makes it an excellent defluxer. This can also be used as an all-purpose cleaner for removal of light



Part No.	Product No.	1	12
263724EX	11.5 ml pen	\$6.19	\$5.61

#### 2. Conductive Pen

Contains a fast drying, silver filled ink designed to quickly make highly conductive silver traces. Conductive pen repairs traces, makes smooth jumpers, links and shields components.



Part No.	Description	1	12
263716EX	4.89 ml pen	12.69	\$12.05

#### 3. Overcoat Green Pen 4

Insulate printed circuit board traces and components against high voltage arcing and provide protection from moisture. Protects conductive nen traces and renairs permanent solder mask



conductive pen traces and repairs permanent sorder mask.			
Part No.	Description 1	12	
263732EX	5 ml pen\$9.85	\$9.36	

# Rosin Core Solder Rolls and Pocket Packs

For general use in soldering electronic components. Composition varies from 60-40 tp 63-37.







Organic core

		% Composition		Dia.	Wt.	Pric	ing	
Part No.	Mfr.	Tin	Lead	Silver	(ln.)	(lbs.)	1	10
73576EX	Kester (pak)	60	40	0	.031	0.04	\$2.59	\$2.35
32117EX	Kester	60	40	0	.031	1.00	13.19	11.89
73605EX	Kester (pak)	62	36	2	.020	0.10	1.75	1.49
112344EX	Kester	63	37	0	.020	1.10	17.95	16.19
151474EX	Kester*	63	37	0	.031	1.00	17.69	15.95
170456EX	Golden	60	40	0	.031	0.06	1.39	1.25
141794EX	Super	60	40	0	.031	0.55	5.95	5.39
141786EX	Super	60	40	0	.031	1.10	7.95	6.95
141778EX	Super	60	40	0	.031	2.20	13.95	12.95

#### Refer a Friend

Are you tired of loaning your latest copy of the Jameco catalog to a friend or business associate? If they can't take a hint just visit our website at: www.Jameco.com/CatReferral

We'd be happy to send them a catalog too!





#### 9-in-1 Multi-Tool

This multi-function stainless steel tool fits in the palm of your hand or slip into the provided sheath on your belt. Great gift for the handyman or sportsman.

 2.75" closed • 3.0 oz.

Includes: Spring loaded pliers, wire cutter, LED light, knife, bottle opener, metal file, nail pick, and both a Phillips and a flat head screwdriver.

Description

227264EX 9-in-1 multi tool.....



Multi-tool folded	



Multi-Tool Storage Rack

Organize and store 106 of the most common tools in 24" of wall space. Made of durable plastic material, it easily mounts on a wall with the screws that are included.

Part No.	Description 1	4
239353EX	Multi-tool storage rack \$5.99	\$5.49

We're always looking for suggestions and feedback about the products we are offering in our catalog and on our website. Send your comments to: AtHome@Jameco.com

## Standard Adjustable 3X Magnifying Lamp

· 4" Diameter lens

Part No.

- Maneuverable 30" arm extension
- · Lamp tilts or turns in any direction
- Uses 60W incandescent bulb (not included)
- · Power requirement: 110VAC/60Hz

Part No.	Description	Price
22710EX	Magnifying lamp	\$26.49

#### 3X Magnifying Lamps

- 45" extension arm
- · Supplied with 22-watt Circuline tube
- · Extra strong, all-metal mounting base with electrical outlet
- · New wire clip design permits easy installation
- Power requirement: 110VAC/60Hz

Part No.	Description	Price
100829EX	Black lamp	\$59.95
149981EX	White lamp	59.95

# 3X Flexible Neck Magnifier

Never squint again on small fine prints or have a hard time holding a magnifying glass at the same time holding two other tools with only two hands. Just simply clamp the magnifying lens on to a table or workbench and adjust the flexible gooseneck into position.



· 3.5" diameter and 3x diopter lens

· Arm length: 20"

Part No.	Description	Price
239548EX	Flexible neck magnifier	\$12.99

## Adjustable or Fixed Lamps Illuminate & Magnify 3X



Need a flexible magnifying solution at a terrific price? Our adjustable rectangular 3-diopter 7.0"x 4.5" diameter lens allows the magnifier independent movement from the light for best viewing angles. On-off buttons control the top and side lights separately, allowing varying light intensity.

Part No.	Description	Price
217517EX	Adjustable magnifying lamp	\$79.95

# **Precision 5X Magnifying Lamp**

With an arm that extends to 40" long, adjustable to any direction or angle, and 5" diameter, 5X magnifying glass with built-in light, this is the perfect tool to help identify small electronic components and for soldering.

Includes: 22W circuline fluorescent bulb

Part No.	Description	Power Requirement	Weight	Price
197456EX	Magnifying lamp	110VAC/60Hz	7.1 lbs	\$109.95



# **Kwik Change Tool/Parts Tote**

Versatile storage tote for organized storage space. Front drop panel reveals four slideout storage boxes and comes with two interchangeable racks and one double deep rack. Bulk storage beneath lid for larger tools and exterior rack for small tool storage. Ruler on front for added convenience.

Size: 20.5"H x 12"W x 14.5"D

Part No.	Description	Price
261892EX	Tool/parts tote	\$49.85

Can't find what you're looking for? Log on for more @ www.Jameco.com.

# Super-bright, waterproof and shockproof LED flashlight.

Super bright white LEDs have a life of at least 11 years of continuous use. This heavy-duty flashlight is waterproof and designed for all weather conditions. It's shockproof casing was built to withstand a drop from 4'. LED flashlights have a low cost per hour of operation because batteries last 14 times longer than in conventional flashlights. The 10-LED flashlight lasts a month of continuous use on three "D" cell batteries. The 7-LED flashlight uses 3 "C" cell batteries and lasts 25-days of continuous use. The 4-LED model lasts 14-days of continuous operation

using three "AA" cell batteries.

Part No.	Description	Price
215677EX	10-LED 10.6" Flashlight	\$63.95
215685EX	7-LED 8.9" Flashlight	53.95
215693EX	4-LED 7.9" Flashlight	33.95

# Make your Maglite® 100 times more useful!

These handy helpers are just the thing to make your Maglite® hands-free! Now you can easily direct the powerful Maglite® beam of light right where you need it! Just position your little "friend" using super-flexible legs, and a strong beam illuminates your projects, comfortably and reliably. No more balancing acts, no more "mouthlights!" Two models come complete with Maglites®, either in AA or AAA sizes. The other two areready to convert your existing mini-flashlights into useful, versatile workbench buddies.

Part No.	Description	Price
239880EX	Flashlight Friend® with AA Maglite®\$	15.99
239898EX	Flashlight Friend® with AAA Maglite®	11.99
239901EX	Flashlight Friend® for existing AA flashlights	6.35
239919EX	Flashlight Friend® for existing AAA flashlights	3.95





Bright White

LEDs!







# Make all your trusty flashlights even better!

Enclose your Maglite® flashlights in these indispensable carriers and they'll automatically become twice as useful. A neoprene sheath protects your hands from that chilly aluminum shaft in the wintertime, and a strap secures your grip. Plus, a belt-clip keeps the flashlight at your side for instant access, and frees your hand when the light isn't needed. Available in C, D, and AA sizes to fit all the Maglite® flashlights in your home and shop.

Part No.	Description	Price
239994EX	Grip 'N Clip carrier for most AA flashlights	\$3.95
239986EX	Grip 'N Clip carrier for most C flashlights	7.15
239978EX	Grip 'N Clip carrier for most D flashlights	7.15

# Keep your flashlight always ready, and hands-free!

The Lite-Lok would be useful enough as a tough, wall- or belt-mountable flashlight holster. But there's more! Clip the flashlight on your belt and lock it into one of eight positions for a "third hand" when working in dark areas. The AA version comes with a tough Mini-Maglite®, and the C and D models fit most standard Maglite® flashlights in those sizes. You'll be glad you've got this helping hand!

Part No.	Description	Price
240004EX	Lite-Lok with mini AA flashlight	. \$15.95
240012EX	Lite-Lok for most C flashlights	15.15
240021EX	Lite-Lok for most D flashlights	15.15







# Perfect for close work: Light right where you need it!

We've all been in a three-hands-needed situation where a flashlight in the mouth is the only solution. That is, until now. This hands-free holder lets you comfortably hold your own Mini-Maglite® (not included) in the perfect position. Made from FDA approved plastic and equipped with a neck cord to keep it handy.

Part No.	Description	Price
240080EX	Lite-Bite mini flashlight holder	\$2.35



# Add "night vision" instantly!

Unlike other add-on lights, the Lite-Ride installs in a snap and aims the light right where you want it! Your Mini-Maglite® (flashlight not included) becomes a versatile shock-absorbed head or tail-light in seconds, increasing safety and extending play hours. UV resistant and weatherproof, you'll want one or two for all of your bikes and scooters!

Part No.	Description	Price
240071EX	Lite-Ride for bicycles or scooters	\$4.75

All these and more products available on our website. Log on today @ www.Jameco.com

# Bend light, Illuminates those impossible-to-reach places!

For close work in confined areas, now you can twist and shape your light to reach where no beam has gone before! No more wrestling and squinting; these precision adaptors turn your Maglite® AA and AAA flashlights into a go-where-you-need-it lighting system. Perfect for kit-builders, maintenance work, any application where light is needed in hard-to-access places. Just choose the length (4.5" to 20") and size that's right for you.

Part No.	Description	Price
239927EX	7" adapter with AA flashlight	. \$15.95
239943EX	7" adapter for most AA flashlights	5.55
239951EX	4.5" adapter for AAA flashlights	4.75
239960EX	20" adapter for AA flashlights	7.95
239935EX	20" adapter for AAA flashlights	7.95





# Hands-free light, right where you are looking!

These adjustable, one-size-fits-all headbands make lighting your work a breeze. For an all-in-one solution, choose the band complete with a powerful, adjustable Mini-Maglite® (P/N 240047EX). If you want to equip your own mini-flashlight for hands-free use, order P/N 240055EX. Either way, you'll get a multipurpose, comfortable hands-free helper.

Part No.	Description	Price
240047EX	Mini-Maglite® (requires 4 AA batteries)	\$15.95
240055EX	Headband for most AA flashlights	5.55

# Make any mini flashlight more versatile magnetically.

With hook-andloop ease, your mini flashlight can now "get a grip" on your refrigerator, in your car, on your metal



worktable, or any other ferrous metal surface. This clip's powerful magnet will hold it for you, right where you need it.

Part No. Description		Price
240063FX	Magnetic AA flashlight clip	\$3 15



#### Non-Insulated Terminal **D-Sub Crimping Tool**

#### 14-26 AWG

- · Metal crimping tool with cutter and insulated handles
- For computer pins, sockets and D-sub 26-28 AWG wire
- For butt-insulated connectors, 22-26 AWG wire • Coiled spring return
- For telephone spade lugs, 22-26 AWG wire
- · For non-insulated connectors, 20-22 AWG wire For non-insulated connectors, 14-18 AWG wire

Part No.	Product No.			1	10
1 01 1101	i ilisalatea comitectors	,	1071110	*****	•



## D-Sub Crimping Tool

#### 20-28 AWG

- · Crimps D-sub pins and sockets
- Size: 7.0"L x 4.0"W

Part No.	Product No.	1	
159265EX	HT213	. \$10.95	\$9

# Ratcheted BNC Crimping Tool

- · Crimps RG58, RG59, RG62, RG174 and fiber optic
- All steel construction

Part No.	Product No. 1	1
114534EX	HT-3019\$23.95	\$21.5

# **Terminal Wire Crimping Tool**

- · Crimps solderless terminals: 18-22 AWG red, 14-16 AWG blue and 10-12 AWG yellow
- Size: 9.0"L x 2.0"W

Part No.	Mfr. Cross Ref. No.	1	10
72995EX	HT303	\$18.95	\$17.06



## **IDC Connector** Crimping Tool

- · Crimping distance: 27.5mm to 6mm (with attachment)
- Cushioned red handles
- · Crimp insulation displacement connectors
- Use for IDC socket connectors, pg 39

Part No.	Product No.	Size	1	10
73251EX	HT214	9.2"L x 3.0"W	\$15.95	\$14.39

# **Hex Crimp Tools**

· Use with RG-58 and RG-59 connectors with up to a 3/8" ferrule

261745EX: 1.7mm standard crimp for crimping center conductor on BNC & TNC connectors; up to 3/8" ferrule

	7EX:			1/2"	

Part No.	Description	Price
261745EX	Hex crimp tool, 3/8"	\$19.75
261737EX	Hex crimp tool, 1/2"	19.49

# 5" Cutting Pliers

Recommended for cutting copper and soft lead wires. Ideal for



#### **Cutting Pliers**

- Flush Cut
- Stainless steel
- Side cutting flush cut Leaf spring for

smooth co		AND 100
Part No. D	escription	Pric
<b>261788EX</b> C	utting pliers	\$6.9

#### Xcelite<sup>1</sup>

#### Wire Cutter

- Spring return
- · Micro series wire

cutter –	flush; 6"		
Part No.	Product No.	1	10
146712EX	170M	\$5.75	\$5.19

#### 5-Piece Pliers Set

- · Precision machined heat-treated jaws
- Vinyl insulated handles

Includes: 6.5" needle nose; 7.5" lineman's; 8" slip joint; 8" groove joint & cutting pliers



## 5" Wire Cutter/Stripper

- · Insulated handles
- Spring return
- Tempered steel cutting edge Adjustment for wire gauges
- For 10-30 AWG wire

Part No.	Mfr. Cross Ref. No.	Size	1	10
78991EX	HT108	5.0"L x 3.0"W	\$3.95	\$3.49

# Automatic Wire Stripper

- Strips 8-22 AWG wires
- Spring load gripSize: 7.0"L x 2.5"W
- Weight: 0.8 lbs.

Includes: Wire stopper for desired strip length

Part No.	Description	1	10
175097EX	Auto wire stripper	\$16.95	\$15.26

# 🌃 6" Premium T6 Wire Stripper

- Contoured cushiongrip handles
- Wire size markings, in AWG and mm
- 16-26 AWG stranded
- Size: 6.0"L x 2.0"W

Part No.	Product No.	Description	1	10
161234EX	ID45-216	T-6 16-26 AWG	\$16.95	\$15.26



#### **Rotary Coax Cable Strippers**

#### 2 and 3 Blade

159118EX (3 Blade):

- 2 settings RG58/59/62 For cable sizes 4-10mm
- · Color: black Size: 4.2"L x 1.3"W
- 159185EX (2 Blade):
- 4 settings RG58/59/62/174
- For cable sizes 4-12mm • Size: 3.9"L x 0.7"W • Color: gray

Includes: Hex key wrench for adjusting blade

Part No.	Product No.	l l	10
159118EX	HT312B (3 blade)	\$13.95	\$12.56
159185EX	HT332D (2 blade)	13.95	12.56

#### Strip-Wrap-Unwrap Tool



- · Tool tip made of tempered steel
- · Spring steel cutter
- Use with 30 AWG wire on .025" square posts
- No solder necessary, see pg 43 for wire
- · Wrap 1 to 2 turns of insulated portion of wire for • 4.5" long secure connections • Modified tool

Part No.	Mfr. Cross Ref. No.	1	10
34585EX	WSU30M\$49	9.99	\$44.99
236785EX	HSR3029	9.95	26.95



- · Perfect for cutting trimming, or notching sheet metal up to 18 AWG
- Time-saver when working on prototyping, chassis, and circuit boards
- · Minimum .375" hole required · Size: 7.8"L

Part No.	Prod. No.	Description	1	10
18809EX	HT204	Nibbling tool	\$7.95	\$7.16
29330EX	HT204B	Replacement bit	4.49	4.04

#### Impact Punch-Down Tool

- Reversible clip-in blade
- Adjustable (HI-LO) spring-loaded impact mechanism
- Storage bin on handle for spare blade



#### 175071EX:

#### Punch-down tool with blade

- For 66-type terminalsSize: 5.2"L x 1.5"W x 1.0"H

#### 175089EX:

Punch-down blade

· Blade for 110-type terminals D . . . . . . . . . . . . . . .

Part No.	Description	10
175071EX	Tool w/ 66 blade \$34.95	\$31.46
175089EX	Punch-down blade 110 14.95	13.49

# Impact Punch-Down Tool

Conforms to AT&T performance specification. Reversible clip-in blade, adjustable spring-loaded impact mechanism and spåre storage blade in the handle.



Paladin Tools®

175071EX

175089FX

· For 66-type bifurcated terminals

• Size: 7.0"L x 1.4"W x 1.1"H Part No. Description 124142EX Tool with blade ..... \$45.00 #110 bl ade ..... 124151EX

## **D-Sub Pin Insertion/ Extraction Tool**

· Material: Red/white plastic body · Exchangeable tips

Part No. Description 19094EX Insertion/extraction tool ........ \$2.79

More Tools @ www.lameco.com.





# Aerospace-designed wrench works in half the space of others!

These wrenches, developed for the aerospace industry, ratchet in just 30° of space - half the space of other open-end wrenches. They are made of solid 17-4 stainless tool steel, so they can't flake or chip like chrome-plated tools. The SAE set fits 3/8"-7/8", 1/2"-9/16", 5/8"-11/16". The metric set fits 10-12, 13-14, 15-17. They're so indestructible, AldenWrench guarantees them for life!

Part No.	Description	Price
223896EX	3-piece wrench set (SAE)	\$34.95
223909EX	3-piece wrench set (metric) Was \$34.9	5 31.95



With a ratcheting angle of just 30°, these wrenches work where others don't. Why didn't someone think of it sooner?

#### Mini-Drill and Stand

This Mini Drill is excellent for drilling through circuit boards and protoboards. The drill comes with an array of drilling, grinding and sanding attachments. Drill stand is designed to function like a drill press.



Shown w/ drill (26702EX) & stand (26711EX)

Part No.	Description	Wt. (lbs.)	1	10
26702EX	MS398 drill	0.8	\$29.95	\$26.95
26711EX	MS399 stand	1.8	19.95	17.95

#### 7-Piece Insulated Screwdriver Set

- Tapered handle for sure grip
- · Precision ground shank
- · Hardened, magnetic tips

Includes: 0.4/0.8/1.0/1.2mm slotted; #0/1/2 Phillips



#### Security bits to bypass those bizarre screwheads.

This security bit set contains most of the bits commonly used in today's electronic products to make them

tamper resistant. Now you can open the cases of these products to repair them without damaging the case or screw.

Includes: Torx bits: #6, #8 and #10; Tri-wing bits: #1, #2, #3 and #4; Security hex bits: 5/64", 3/32", 7/64", 1/8", 9/64", 5/32" 3/16" and 1/4"; Security Torx bits: T8, T10, T15, T20, T25, T27, T30, T35 and T40; Spanner bits: 4, 6, 8 and 10mm; Phillips bits: #1, #2, #3 and #4; and 60mm magnetic bit extension that fits 1/4" hex driver

Part No.	Description	1	10
223829EX	32-piece tool kit	\$11.95	\$10.75

# 25-Piece Assorted Screwdriver Grab Bag





25 assorted sizes and types of screwdrivers in a box. Types may include slotted, Phillips, Torx or star.

Part No.	Description	1	10
235070EX	Assorted screwdrivers	\$15.99	\$14.99

# 25-Piece Hex Key Set

- · 12-piece SAE long arm with
- sizes from 1/16" to 3/8" 13-piece Metric short arm with sizes from 1.5mm to 1cm

Includes:	vinyl pouch	EMPRINE STA	IHIHI
Part No.	Description	1	5
261825EX	Hex key set	\$6.95	\$6.59

# **High Speed Steel Step Drills**

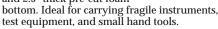


Drill multiple holes in thin material with the same bit, faster and easier. You can drill holes in most materials such as plastic, metal, and wood up to 1/8" thick. No center punching on most sizes. Made of high-speed steel.

Part No.	Description	Size	1	10
229657EX	Step drill	3/16" to 7/8" 13-step	\$14.95	\$13.45
172401EX	Step drill	3/16" to 1/2" 6-step .	9.95	8.95

## **Heavy-Duty Tool/ Equipment Case**

Made of lightweight aluminum, this tool case is designed to take rough field use. Case includes tool pallet, egg carton foam lid, and 2.5" thick pre-cut foam



• Size: 19"L x 14"W x 6"D

Part No.	Description	Price
261876EX	Tool/equipment case	\$51.39

#### 7-Piece Nut Driver Sets

- · Premium hardened steel sockets
- Large colored handles

261850EX: Metric 5mm, 6mm, 7mm, 8mm, 9mm, 10mm & 11mm 261841EX: SAE

3/16", 1/4", 5/16", 11/32", 3/8", 7/16", 1/2"

Part No.	Description 1	5
261850EX	Metric nut driver set \$8.99	\$8.65
261841EX	SAE nut driver set 9.89	9.49

# Spring-hook set makes the job faster and easier.



Each end has a unique point to fit the right situation and position.

Grab or place in position springs and wires in those hard-to-reach areas with these 8" long spring-hook tools.

1 0			
Part No.	Description	1	5
226042FX	Spring-hook set	\$5.95	\$5.69

#### 9-Piece Assorted Drill Bit Kit

- Variety of sizes: .014" to .126"
- · Each kit will vary in contents of bit sizes
- Shank diameter: .125"

Includes: Plastic case

	IC
bit kit <b>\$9.95</b>	\$8.95
	bit kit \$9.95

#### **PC Board Drill Bits**



- · Reconditioned carbon steel bits
- · High quality long lasting cutting edge
- · Shank diameter: .125"
- · Use for drilling holes in glass PC boards

l	Part No.	Drill Dia	Nο	Application 1	10
l				Miscellaneous \$1.49	
l	16580EX	.040"	59	Plated thru holes 1.59	1.43

# Variable High-Speed Rotary Tool Kit



A multiple high-speed rotary tool kit with 6-speed selections ranging from 8,000 to 30,000 RPM, along with 40 bits and accessories, provides you all the power and precision you need to tackle almost any cutting, drilling, polishing, sanding or engraving job. With its high-speed output, plus a nylon body, you can grasp the tool lightly to perform fast rough work or delicate craftsmanship. A convenient shaft-lock button provides fast-and-easy accessory bit changing.

- 9" long variable-speed rotary tool
- Drum sander wheel
   3 drum sander pads
- 2 felt buffing pads Grinder dressing stone
- 6 disk sanding pads Disk sanding arbor
- 10 rotary grinders 7 disk grinders • 2 drill bits Wrench
- 4 rotary files One-year manufacturer's warranty

Part No.	Description	1	Į
211289FX	Rotary tool kit	\$44.95	\$42.95

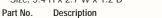


# A great bargain 2000-count multimeter for just \$15.49

A full-featured multimeter with the basic functions needed for testing electronic equipment.

Compared to simpler models this DMM features:

- · Greater resolution: 100uV max.
- · Large 0.6" LCD backlit dispaly
- 7 function / 17 ranges
- · Data hold switch, backlight button
- Transistor h<sub>FE</sub> test
- DC voltage ranges: 200mV 600V
- AC voltage ranges: 200V 600V
- DC current ranges: 200uA 10A
- Resistance ranges:  $200\Omega 2M\Omega$ Size: 5.4"H x 2.7"W x 1.2"D







#### 2000-Count Pocket Multimeter

- · DC voltage ranges:
- 200mV, 2V, 20V, 200V, 1000V
- · AC voltage ranges: 200V, 750V
- · DC current ranges: 200μA, 2mA, 20mA, 200mA, 10A
- Resistance ranges: 200Ω  $2k\Omega$ ,  $20k\Omega$ ,  $200k\Omega$ ,  $2M\Omega$
- · Diode and transistor tests
- 0.5" digit height Removable test leads
- Size: 2.6"W x 1.0"D x 4.8"H

Includes: 9V battery

Part No.	Description	Price
119212EX	Pocket multimeter	\$19.95

#### **METEX**® 2000-Count Multimeter

#### 0.5" Digit Height . LCD Readout

- Resolution: 100µV maximum
- DC voltage ranges: 200mV 100V
- AC voltage ranges: 200mV 750V
- DC/AC current ranges: 20µA 20A
- Resistance ranges: 200Ω 20MΩ
- Auto zeroing
- Input impedance: 10MΩ



Includes: Probes, carrying case, manual & 9V battery

	, , ,	,
Part No.	Product No.	Price
27115EX	M3800	\$39.95

#### 2000-Count Multimeter

#### With Temperature & Frequency Measurement

- 3½-digit LCD (1.0" digit height)
- Resolution: 100µV maximum
- DC voltage ranges: 200mV 1000V
- AC voltage ranges: 200mV 700V
- DC/AC current ranges: 200µA 10A
- Resistance ranges:  $200\Omega 200M\Omega$
- Capacitance ranges: 2nF 20μF
- Frequency: 20kHz
   Wt.: 1.6 lbs.
- Temperature range: -20°C 1000°C
- · Diode, transistor and continuity testing Data hold switch
   Size: 4.0"W x 2.0"D x 8.0"H

Incudes: Manual, probes, and 9V battery

Part No.	Mfr. Cross Ref. No.	Price
177480EX	AEEC2890	\$49.95

#### Digital Multimeter Quick Selection Guide

All have VDC\_VAC\_Resistance and Current

\* See indicated page for more details on each product

All Have ve	, o, o,	o, Resistance and curren							•	JCC III	uicati	u pag	je ivi	more	uctan	3 011 0	acii product
	Handheld & Bench-Type Digital Multimeters																
			Feat			Sta	ndard	Funct	ions	Sp	ecial	Funct	ions				
Nanua Best Selle	Schrer N	6	Display Co	Analog Batgle	S. Interfe	Autorange	Title RN.	oacitano	nduciano	requence.	nperalul S	Diode re	Confiners in Confiners	Transiste Te	or net le	Se \	Price
220855EX	~	M83013	Below	2000		<u> </u>	<u> </u>	,	,		<u> </u>	,	~	<u> </u>	~	~	\$9.95
27115EX	V	Metex M3800	Below	2000									~		V	~	39.95
119212EX	~	JE110	Below	2000									~			~	19.95
220759EX		Mastech MAS830L	Left	2000									~		~	~	15.49
177480EX	~	AEEC2890	Below	2000					~		~	~	~		1	~	49.95
211650EX		Extech MN26	Below	4000			~		~		~	~	~		V		39.95
137461EX	~	Metex M3860D	Below	4000	~	~	~	~	~	~	~	~		~	~	~	149.95
136590EX	~	Mastech MY65	Below	20,000					~		~				~	~	73.49
185201EX		B&K BK5380	Below	50,000	~		~	~	~		~		~		~		149.99
203801EX		8012A*	56	2,000													199.95
230586EX		B940*	56	4,000		~	~	~	~		~		~		~		148.95
166852EX		Metex MXD4660A*	56	20,000	~	~		~			~		~	~	~	~	249.95

\*Benchtop multimeter

#### **Extremely Low Cost 7-Function** 2000-Count Multimeter

- 31/2-digit LCD display (0.5" digit height)
- Resolution: 100µV maximum
- DC voltage ranges: 200mV 500V
- DC current ranges: 200μA 10A
- Resistance ranges: 200Ω 2000kΩ
- · Diode, continuity and
- transistor h<sub>FE</sub> test
- Size: 2.7"W x 1.0"D x 5.0"H

Part No. Product No. 10 220855EX M830B ..... \$9.95



# 2000-Count Digital LCR Meter

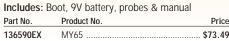
- · Inductance ranges: 200uH to 200H
- Capacitance ranges: 200pF to 2000µF
- Resistance ranges:  $2m\Omega$  to  $20M\Omega$
- Dissipation factor measurement
- Size: 6.7"L x 3.3"W x 1.4"D
- · One-year warranty

Includes: Test leads and 9V battery

Part No.	Description	Price
127538EX	LCR meter	\$149.95

#### **Our Lowest-Priced** 20,000-Count Multimeter

- Extra-large digits (0.8" digit height)
- Resolution: 10µV maximum
- DC voltage ranges: 200mV 1000V
- AC voltage ranges: 2V 700V
- DC/AC current ranges: 2mA 10mA
- Resistance ranges:  $200\Omega 200M\Omega$
- Capacitance ranges: 200pF 20µF
- Measures transistor h<sub>FF</sub> & continuity
- Hold button
- · Auto power off MASTECH CE approved



More @ www.Jameco.com

# 4000-Count, 11-Function Multimeter with Autorange

- · 4000-count large LCD display
- · Auto ranging with manual override
- **EXTECH**
- Resolution: 0.1mV max.
- AC/DC voltage ranges: 400mV 600V AC/DC current ranges: 400µA – 10A
- Resistance ranges:  $400\Omega 40M\Omega$
- Capacitance ranges: 4nF 200µF
  - Frequency ranges: 10Hz 10MHz Temperature ranges: 0°F – 1400°F (0°C – 760°C)
- Diode test, duty cycle and continuity
- · Relative zero, data hold, range hold, auto off

Includes: Protective holster with stand, two 1.5V AAA batteries and test leads

Part No.	Description	Price
211650EX	Multimeter	\$39.95

# 4000-Count Multimeter with RS-232, Dual Display & Inductance

- Dual displays for comparative ( € measurements
- 3¾-digit LCD (5½" digit height) Resolution: 100µV maximum
- DC voltage ranges: 400mV 1000V
- AC voltage ranges: 400mV 750V
- DC/AC current ranges: 400µA 20A Resistance ranges:  $400\Omega - 40M\Omega$
- Temp.: -40°C to +1200°C; 1°C res. Measures inductance, capacitance,
- transistor h<sub>FE</sub> and frequency Autoranging all measurement settings

METEX Includes: 9V battery, software and cable Part No. Product No.



# 17MHz Logic Probe

- Max input frequency: 17MHz · Minimum pulse width: 30ns
- Input impedance: 1MΩ
- · Pulse flash time: 500ms
- · Audible tones for high and low Power supply protection: ±20V TTL threshold: (Lo) 0.8V ±0.2V, (Hi) 2.3V ±0.2V

 CMOS threshold: (Lo) 30% VCC, (Hi) 70% VCC Part No. Description

149930EX Logic probe .....





Less Bench Space-

**Great Convenience** 

#### 50,000-Count Digital Multimeter with Analog Bar Graph

- True RMS reading
- · 0.55" digit height
- · Auto and manual ranging
- AC/DC voltage protection
- · Continuity and diode testing
- Basic DC accuracy: BK5380 - 0.025%
- · DC voltage: 500mV to 1000V (10uV to 100mV resolution)
- Resistance: 500Ω-50MΩ  $(10m\Omega-1k\Omega)$
- Frequency: 0.6Hz 500kHz
- Capacitance: 50nF 50mF  $(10pF - 10\mu F res.)$

Includes: Probes and manual

Part No. I	Product No.	Price
185201EX	BK5380	\$149.99

# 2000-Count Multimeter

The Fluke 8012A is a portable, bench-type, digital multimeter with 3½ digit liquid crystal display(LCD).

- · Resolution: 100µV maximum
- DC voltage ranges: 200mV - 1000V
- · AC voltage ranges: 200mV 700V
- DC/AC current ranges: 20μA 2A
   Resistance ranges: 2Ω 20Ω (low range)
- $200\Omega 20M\Omega$
- Conductance ranges: 2µS 200nS
- Size: 7.5"W x 9.6"D x 2.5"H
- Weight: 2.6 lbs. † Refurbished

Part No.	Product No.	Price
203801EX	8012A <sup>†</sup>	\$199.95

FLUKE

# 4000-Count True RMS Benchtop Multimeter with RS-232

- · 9 functions, 32 ranges
- · 3¾-digit backlit LCD display with bargraph
- Auto/manual ranging
- True RMS AC volts and amps
- Resolution: 100µV maximum
- DC voltage ranges: 400mV 1000V (0.3% accuracy)
- AC voltage ranges: 4V 750V
- DC/AC current ranges: 4mA 10A
- Resistance ranges:  $400\Omega 40M\Omega$
- Capacitance ranges: 4nF 40μF
- Frequency ranges: 100Hz 600kHz
- Diode and continuity test
   Delay hold mode
- Min., max., and relative hold function
- Input voltage: 9V battery or 90-132VAC/
- 198-264VAC @ 50-60Hz Protek
- Size: 9.0"W x 9.4"D x 3.3"H
- · Weight: 3.3 lbs.
- Two-year warranty

Low-Price Guarantee

Includes: Manual, test leads, power adapter, 9V battery, RS-232 cable and software (98/ME/2000/XP compatible)

Part No.	Product No. 1	5
230586EX	B940 <b>\$148.95</b>	\$141.55



#### 20,000-Count Benchtop Multimeter w/ RS-232, Analog Bar & 4 Displays

- · Automatic polarity indicator
- 1-2 readings per second
- DC accuracy: 0.1% +5 digits
- 10 reading storage & compare
- Resolution: 10µV maximum
- DC voltage ranges: 200mV 1000V
- AC voltage ranges: 200mV 750V
- DC/AC current ranges: 2mA 20A
- Resistance ranges:  $200\Omega 20M\Omega$
- · Frequency ranges: 20kHz 20MHz
- MIN., MAX., AVE., relative functions

 Logic, diode, transistor h<sub>FE</sub> and continuity test Includes: Manual, power cable, probes and software

Part No.	Product No.	Price
166852EX	MXD4660A	\$249.95

METEX

1483Y

## **Passive Component LCR Meter**

**EXTECH** 

- · Measures L, C, and R with secondary parameter Q, D or R; both are displayed
- Accuracy of 0.7% for L & C, 0.5% for R
- · Inductance ranges: 2000.0µH to 2000.0H
- Capacitance ranges: 2000.0pF to 2000.0µF
- Resistance ranges:  $20.000\Omega$  to  $20.000M\Omega$
- Test frequencies of 120Hz and 1kHz
- Quality (Q) reading: 0 to 9999
- · Dissipation Factor (D) (with C) reading: 0 to 0.9999
- Selectable parallel or series equivalent circuit
- Set HI/LO limits, absolute or percentage
- · Bidirectional RS-232 port with optional software
- · Max./Min./Avg. recording with auto power off

Includes: Leads, alligator clips, 9V battery & holster

Part No.	Description	Price
198678EX	LCR Meter	\$178.95

## Mini DC/AC Current Clamp Meter/Multimeter

- Bright 1/2" LCD display with DATA HOLD
- · 0.5" digit height
- · Size:
- 7.1"L x 1.9"W x 1.4"H Requires:

9V battery not included (P/N 151095EX, pg 30)



Includes: Test leads, manual and case

Part No.	Description	Price
115756EX	Mini DC/AC clamp meter	\$119.95

# BK PRECISION

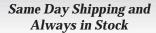
#### 150kHz Sine/Square-Wave Audio Generator

Small and convenient, this audio generator can be used to test telco and audio equipment.

- 20Hz to 150kHz in 46 steps
- · Low distortion R-C oscillator
- · Variable output control
- Size: 5.9"L x 3.2"W x 0.8"H Output Impedance: 600Ω

Includes: 9VDC battery

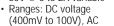
Part No.	Prod.No.	Description P	rice
166334EX	BK3001	Audio generator \$78	3.95



#### **METEX**® 4-in-1 Universal System

With Function Generator, Universal Counter, DC Power Supply & Digital Multimeter

- · Generate 7 forms of waves in 7 frequency ranges from 0.2Hz to 2MHz
- Measure frequency ranges from 5Hz to 1.3GHz
- Generate 5V @ 2A, 15V @ 1A fixed and 0 to 30V @ 0 to 2A variable





Size: 14.5"W x 14.0"D x 7.0"H • Weight: 37 lbs.

Includes: Manual, cables and software

Part No.	Product No.	Price
160864EX	MS9150	. \$549.95

# 2MHz Function Generator and 2.7GHz Frequency Counter

Function Generator: (2Hz - 2MHz)

- · Wave forms: sine, square, triangle, skewed, ramp, pulse & TTL level square
- Frequency: 2Hz to 2MHz in 7 ranges
- Output impedance: 50Ω ±10%
- Output amplitude: 2 to 20Vpp at open load; 1 to 10Vpp at  $50\Omega$  load
- Offset variable range (max.): ±10VDC at open load
- Frequency sweep time: 20ms to 2s
- Frequency Counter: (5Hz 2.7GHz) · Measuring range: channel A: 1Hz to
- 20MHz; channel B: 20MHz to 2.7GHz Input sensitivity: channel A: 20mVRMS sinewave or 100mVp-p; channel B: 40mVRMS for 20MHz to 1.3GHz; 70mVRMS for 1.3GHz to 2.7GHz
- Max. input voltage: channel A: 35Vp-p; channel B: 3Vp-p
- Input impedance: channel A,  $1M\Omega$ ; channel B,  $50\Omega$
- · Data logging and graphic software

Includes: Coax & power cable, manual, serial cable and software

Part No.	Description	Price
192671EX	Function generator/counter	\$319.95

# 2MHz Function Generator

- · Frequency range: 0.02Hz to 2MHz
- · Waveforms: sine, triangle, square, ramp, TTL pulse, skewed sine
- Variable waveform/duty cycle symmetry
- DC offset voltage from 0 to
- ±10V; can be superimposed to output waveform
- Output volt.: 20Vp-p (open circuit), 10Vp-p (into 50Ω) Input voltage: 110V/220V 50-60Hz

Includes: Power cord, BNC to clip cable, fuse & manual

Part No.	Product No.	Price
66069EX	FG8002	\$189.95



ez digita:



#### Handheld 5MHz Oscilloscope with 4000-Count Digital Multimeter

- 128 x 128 pixel graphic STN LCD
- E/L backlight
- PC interface via RS-232
- · Memory and recall for 4 values
- With temp. measurement

#### Oscilloscope:

- · DC-5MHz bandwidth; 20MS/sec. sampling rate; single channel
- · Vertical axis: 3 steps  $(\pm 0.5/5/50 \text{ volts})$  with 4 divisions
- Horizontal axis: 16 steps (800ns/div to 26.2ms/div) in 8 divisions
- · Trigger: auto and internal mode, slope and 5 trigger level selectable
- · Text display for peak to peak, min./max. voltage and frequency

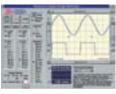
#### Digital Multimeter:

- 3<sup>3</sup>/<sub>4</sub>-digit with 43 segment bargraph
- Auto ranging; triple display for related reading; data and range hold; auto/min/max hold and relative offset
- · DC voltage ranges: 400mV 1000V
- AC voltage ranges: 4V 750V
- DC/AC current ranges: 400uA 400mA
- Resistance ranges: 400Ω 40MΩ
- Frequency ranges: 4kHz 4MHz
- Temp. ranges: -40°C +1200°C
- Capacitance ranges: 4nF 400μF
- Size: 3.4"W x 1.5"D x 8.0"H Weight: 3.9 lbs.

Includes: Manual, power adapter and test leads

Part No.	Description	1	5
221962EX	MS-1280 (w/ temperature)	\$349.95	\$332.95
221938EX	RS-232 cable & software	19.95	18.95
221946EX	Scope probe	24.95	23.69
221954EX	Holster	5.95	4.75

#### PC-MultiScope 100MHz **Dual-Channel DSO**





MFTFX

#### mission technology

- · 100MHz sampling; dual channel
- Chart recorder and FFT mode
- 5mV to 5V per div.; 20MHz bandwidth; ext. trigger
- 0-4MHz sine and square wave signal generator
- Triple power supply; 5VDC @ 500mA and ±0-8VDC @ 250mÅ • One-year warranty

Includes: Parallel port cable, AC adapter, alligator clip probe, Windows® 3.1/95/98 software

Part No.	Description	1	10
163230EX	PC-MultiScope 3 \$579.99	5	\$529.95

# www.Jameco.com

Log onto our website today for Jameco's complete selection of test equipment and accessories!

#### Handheld 20MHz Digital Oscilloscope & Multimeter

- · 4-in-1: digital oscilloscope, DMM, frequency counter & logic analyzer
- · Oscilloscope: 2-channel input, 5mV-2V/div; DC-20MHz(-3dB); 50ns - 0.5us/div; 20 MS/s sampling rate
- Logic analyzer: 8 inputs; 1.4V threshold level; 35VDC max. input; 50ns min. pulse width
- Digital multimeter: 3<sup>3</sup>/<sub>4</sub>-digit (max. 3999 counts); 40 segment analog bargraph; AC/DC voltage 400mV-600V; AC current 40μA-400mA; DC current 400µA-400mA; resistance



METEX

162430EX

- $400\Omega$ - $40M\Omega$ ; continuity & diode testing Frequency counter: 5Hz-20MHz; 5 digit max.;
- autoranging; AC/DC/DC input coupling; ±10ppm accuracy; 35Vrms/42V-P/60VDC max. input Oscilloscope probes: Use P/N 22891EX and 216047EX, pg 58 · One-year warranty
- Battery required for portable use (see below)
- Size: 10.0"L x 5.0"W x 2.0"H
   Weight: 9.2 lbs.

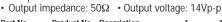
Includes: Manual, 5VDC @ 3A power supply, power cord, DMM test leads, holster and case

Part No.	Description		
162430EX	20MHz digital scope	\$749.95	\$712.95
162974EX	Logic probe	59.95	53.95
163141EX	Rechargeable battery	45.95	41.49
162966EX	RS-232 cable and software .	26.95	24.25
221946EX	Scope probe	24.95	23.69

#### **② EZ DIGITAL**

#### 20MHz 2-Channel Oscilloscope with 1MHz Function Generator

- · Basic specs same as 136098EX (below)
- 7 function generator
- Frequency range: sine, triangle, square, TTL pulse



Part No.	Product No.	Description	1	10
94650EX	OS5020G	Func. gen	. \$529.95	\$499.95

# **⊘** ∈ Z DIGITAL

# 20MHz 2-Channel **Oscilloscope**





2 Instruments in 1

- · 6" rectangular high-resolution blue CRT with internal graticule & scale
- Vertical deflection: 5mV/div to 5V/div in 10 calibrated steps
- Horizontal deflection: 0.2µs/div to 0.2s/div in 19 calibrated steps, 1-2-5 sequence
- Max. signal input voltage: 250V (DC and peak AC)
- ADD function measures sum of two signals Input voltage: 98-125VAC @ 1A,
- 198-225VAC @ 0.5A, 50-60Hz, 45W Includes: Two X1/X10 40MHz probes, power cord, manual, and block diagram

Prod. No. Description Part No. 136098EX OS5020 20MHz scope........ \$399.95 \$385.95

# 50MHz Digital PC-Based Oscilloscope, Spectrum **Analyzer and Transient Recorder**

- Sampling frequency: 1.25kHz-50MHz real-time;
  - 1GHz repetitive
- Input impedance: 1MΩ/30pF
- Parallel Port Interface
- · Inputs: 2 channels, 1 external trigger input
- Max. input voltage: 100V (AC and DC)
  Power required: 9V to 10V @ 1000mA (recommend P/N 100888EX, pg 24)

#### Oscilloscope:

- Timebase: 20ns–100ms per division
- Input sensitivity: 5mV-15V per division w/auto • Rec.: 4096 samples per channel step-function

Spectrum Analyzer: • Frequency range: 0 to 25MHz Transient Recorder: • Time scale: 20ms/div-2000s/div

- Max. recording time: 9.4 hours/screen
- · Max. number of samples: 100/s

System requirements: IBM compatible PC, Windows® 95/98/ME, SVGA card, mouse, printer port, CD-ROM Includes: 2 test leads, PC parallel cable, manual and CD-ROM software

Part No.	Product No.	1	5
200184EX	PCS500AU	\$478.95	\$429.95

# 100-Watt Digital DC Power Supply

#### 30VDC @ 3A

**EXTECH**  Triple output with fixed 5VDC @ 0.5A,

12VDC @ 0.5A Adjustable 0 – 30V voltage

- and 0 3A current outputs
- Displays of both voltage and current
- Constant voltage Current limiting indicator
- · Overload and short circuit protection
- Binding post terminals for variable supply
  Input voltage: 110/220VAC @ 50-60Hz (switchable)

Part No.	Description	1	10
197991EX	Digital DC	\$198.95	\$178.95

# 150-Watt Benchtop Power Supply

#### Single Output

- Power: 150W
- 30VDC @ 5A
- Display: 2-Analog
- Voltage and current adjustable
- Input voltage: 110/220 ±10% VAC
- Current restricted and short-circuit protection
- Analog display accuracy: 2.5%

Part No.	Description 1	10
207618EX	Digital DC \$159.95	\$144.95

# 150-Watt Digital Power Supply

#### 30VDC @ 5A

- · Adjustable voltage/current outputs
- · Constant voltage and current operation
- LCD displays for both current and voltage
- Coarse and fine adjustment knobs for current and voltage
- · Color-coded terminals for positive, negative and • 2A @ 250V fuse ground connections • Înput voltage: 110/220VAC @ 50-60Hz (switchable)

Part No. Description Price 153242EX 30VDC @ 5A .....





#### 150-Watt Analog Power Supply

#### 50VDC @ 3A

- Adjustable voltage/current outputs
- Constant voltage & current operation
- Color-coded terminals for ground, positive and negative terminals
- 3A @ 115V fuse
- · Color-coded adjustment knobs for voltage, current and fine adjustment
- Input voltage: 110VAC @ 60Hz

• Size: 9.0"L x 4.75"W x 7.5"H · Weight: 12.3 lbs.

Part No.	Description	Price
163723EX	50VDC @ 3A	

# 250-Watt Analog Power Supply

#### 50VDC @ 5A

- · Adjustable voltage/current outputs
- Constant voltage & current operation
- · Color-coded adjustment knobs for voltage, current, and fine tuning
- · Color-coded terminals for ground, positive, negative
- 5A @ 250V fuse Isolated ground
- Input voltage: 110VAC @ 50-60Hz
- Size: 4.9"L x 7.7"W x 6.7"H · Weight: 13.8 lbs.

Part No.	Mfr. Cross Ref. No.	Price
175249EX	DPS5050	\$189.95

#### Pomona®

#### **Test Lead Holders**

• Length: 11" 155985EX:

Max cable dia.: 0.450"

· Color: blue

155977EX: • Max cable dia.: 0.320" • Color: black 155969EX: • Max cable dia.: 0.210" • Color: orange

Part No.	Prod. No.	No. of Slots	1	10
155985EX	2708B	9	\$9.95	\$9.45
155977EX	4408	10	9.95	9.45
155969EX	1508	14	9.95	9.45

#### **Double Binding** Posts – Dual Banana

- · Red/Black design
- · Screw-mount
- 0.72" between posts
   Size: 1.6"L x 1.4"W

Part No.	Description	1	10
125196EX	Screw mount bind post	\$3.95	\$3.45

#### **BNC to Double Binding** Posts – Dual Banana



# **BNC to Standard Double Banana Plugs**

11439FX 125225FX

Permits BNC cables to be used with equipment having banana jacks. Lower connection: BNC; upper connection: double banana plug on .750" centers. Cross holes .166" diameter in body provide side stack-up connections.

Part No.	Description	1	10	100
11439EX	BNC banana plug (F)	\$4.95	\$4.49	\$3.99
125225EX	BNC banana plug (M)	5.49	4.95	4.45

#### Modular Oscilloscope Probes

- 60MHz & 100MHz
- · Hook and pointed probes 216047EX: with IC test ground cover and spring ground contact
- Alligator clip ground wire
- Maximum input voltage: 600V

- DIVO Male connector - Length. 5					
	Bandwi	dth (±3dB)	Impedar	nce (R/C)*	
	Attenuation		Atten	uation	
Part No.	х1	x10	х1	x10	
22891EX	6MHz	60MHz	1MΩ/180pF	10MΩ/22pF	

22891EX

22891EX	6MHz	60MHz	1MΩ/180pF	10MΩ/22pF	
216047EX	6MHz	100MHz	1MΩ/47pF	10MΩ/16pF	
* with 20nE oscilloscope input					

Part No.	Mfr. Cross Ref. No. 1	10
22891EX	LF101E \$24.95	\$22.46
216047EX	HF-9100 <b>34.95</b>	29.95

#### Banana to Banana Test Leads

- Stackable
- · Color coded; 2 each red, yellow, blue, black, white • 9.8" long
- 18 AWG wire 10 per package

Part No.	Description 1	10
77841EX	Test leads\$22.95	\$20.69

#### **Double Banana Plugs**

· Dual gold-plated female banana plugs

<ul> <li>Stackabl</li> </ul>	e SALE 125217EX		
Part No.	Description	1 1	0
125209EX	Blk banana connector \$2.6	55 \$2.3	9
125217EX	Red banana connector 1.9	9 1.7	9

# Alligator Clip Leads

- · 24 AWG wire
- · Color-coded, 15" long
- Insulated alligator clip on each end
- 10 per pkg. in assorted colors

Part No.	Description	1	10
10444EX	Alligator leads	\$4.39	\$3.95

#### Pomona<sup>®</sup>

#### Stackable Banana **Test Lead Cables**



- 5000V @ 15A
   55°C max.
- 159919EX: Two 36" leads, mini clip w/ banana
- 45VAC @ 5A max.; beryllium copper contact and glass filled insulation

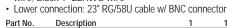
159901EX: Two 24" leads 159919EX: Two 36" leads

Part No.	Prod. No.	Description 1	10
159898EX	3782-36	Mini w/ banana \$7.95	\$7.19
159901EX	B-24-02	Patch cord 9.95	8.95
159919EX	B-36-02	Patch cord 9.95	8.95

#### **BNC to Alligator Clip Test Cable**

Permits BNC assembly to be used as a test cable.

· Upper connection: two alligator clips - red 5.5" 22AWG wire: black 9" 22AWG wire



	001111001101111 20	 000.0	,	00	,,,,,
Part No.	Description			1	10
11383EX	BNC cable .	 	\$3.4	19	\$2.49

#### Alligator and Claw Clips



Jameco offers different types of clips for different applications. Claw clips with teeth on three sides of the jaw for better grip and screw terminal connections. Steel alligator clips with either solder/crimp connection or barrel/screw connection.

248920EX: 1.2"L x 0.3"W 248997EX: 2.8"L x 0.6"W 256524EX: 1.9"L x 0.2"W 248938EX: 1.6"L x 0.3"W **248989EX**: 2.1"L x 0.4"W 249009EX: 2.5"L x 0.5"W

· Prepackaged: order in increments of 2

Part No.	Description 2	4	10
248920EX	Mini-alligator clip solder/crimp \$.28	\$.25	\$.23
248954EX	Red insulator for P/N 248920EX18	.16	.14
248946EX	Black insulator for P/N 248920EX18	.16	.14
256524EX	Alligator clip barrel/screw45	.38	.35
248938EX	Alligator clip solder/crimp52	.48	.42
248971EX	Red insulator for		
	P/N 248938EX/256524EX21	.19	.17
248962EX	Black insulator for		
	P/N 248938EX/256524EX21	.19	.17
248989EX	Claw clip 10A, screw terminal45	.44	.40
249009EX	Claw clip 20A, screw terminal55	.50	.45
248997EX	Claw clip 30A, screw terminal69	.62	.55

#### 11/16" Banana Plugs

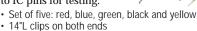
- .1875" lead opening
- Set-screw connection
- · Standard banana spring plug
- Additional 6-32 threaded hole for connection reliability
- Insulating sleeve is threaded to banana plug body

Includes: One red and one black plug

Part No.	Description	Size	1	10
72194EX	Banana plugs	1.6"L x 0.4"Dia.	\$1.59	\$1.49

# Mini-Clip Test Leads

These spring loaded mini-clips hook easily to IC pins for testing.



26 AWG to 300V CSA/UL approved wire

Description 135298EX Mini test leads ...... \$11.49 \$10.39

# Mini Test Clips

- · Two lengths One black
- and one red hooked probe clip



# Mini-Clip BNC to Clip Test Cable

BNC connectors are designed for signal frequencies into the gigahertz range, making them ideal for communications, video & test equipment.



Part No.	Description	Length	1	10
11463EX	Mini-clip RG174	39"	\$4.39	\$3.99



#### Avoid costly downtime.

This compact, handheld Data-Vac electric duster is far less expensive and better for the environment than canned air. It



quickly and easily blows dust, lint and debris off keyboards, computers, printers, disk drives, fax machines, photographic and other high-tech equipment. That helps prevent costly downtime and computer repair.

- 1.73 amps/0.5HP motor 25 CFM/10,000FPM
- 12' UL approved power cord
- · Attachments: air pin pointer & power air maximizer

Part No.	Description	Wt. (lbs.)	Price
219192EX	Data-Vac electric duster	2.9	. \$49.95

#### **Electronic Duster**

Now you can use the same cleaning system that computer and copy-machine techs use nationwide. Its high power and 4-piece Micro Cleaning Tool Kit gets into all



the nooks and crannies of your keyboard, computers, fax machines, printers, and scanners to bring them back to clean-room condition. Plus, its custom carrying case makes it easy to ensure high level performance of everything you own.

Part No.	Description	Price
219256EX	Data vac pro\$	59.95
219264EX	Disposable bags	. 4.99

# Multi-Function Stopwatch

You might pay more, but you won't find a more full-featured and ingeniously- useful stopwatch than this pocket-sized powerhouse.

Time single events, cumulative splits, and compare two competitors with 1/100th of a second accuracy for events up to 30 minutes. Clock and calendar functions round out the outstanding features.

- Time/calendar display: hours, minutes, seconds, month, date and day of week
- · Alarm and snooze function
- Time display mode: 12/24hr. mode selectable

Part No.	Description	Price
239652EX	Multi-function stop timer	\$7.49

# Hot no-touch thermometer technology at a very cool price.

Take exact temperature readings with this tiny beauty in tight, unreachable or hazardous locations, from a safe distance and without the need for contact with the target. Just point the integrated laser pointer at the spot you want to measure and get a precise readout on the large, digital display. The data hold/max hold allows easy recording and comparison measurements, and a wide temperature range (-58°F to +518°F) gives you maximum flexibility. At just 2.7 ounces you can carry it anywhere. Flip a switch to shift from °F to °C for different applications. The 6:1 field of view can pinpoint hot spots easily. Works with two included AAA batteries.

Part No.	Description	Price
219361EX	Extech no-touch thermometer	\$59.99



#### Fight water damage, easily and economically with this moisture test meter!

Attention homeowners, contractors and inspectors! This efficient and cost-effective moisture sensor meter lets you ferret out potential water damage, choose drier lumber, and check surfaces before painting, tiling or wallpapering. Dual scales (relative and percentage moisture)



provide quick readings on a clear analog display. A 3-foot coiled cable makes it easy to get the contact probes into hard-to-reach places. Locate leaks, mash mildew and wallop wetness with this versatile handheld tool. A 9V battery, (not included), provides many hours of continues use.

Part No.	Description	Price
239361EX	Rapid moisture test meter	\$34.99
198791EX	9 volt battery	2.85

# Digital Light Meter

- Lux and footcandle
- Range: 0 50,000 Lux 0 - 5,000 Fc
- · Analog output connections
- Separate light sensor for optimum location sampling
- Dimensions (sensor probe):
   3 2"L x 2 2"W x 0 5"H

0.2 L X 2.2 W X 0.0 H			
Part No.	Description		Price
131764EX	Digital light meter		\$99.95

Over 99% of our products are in stock! Place your order by 6PM EST for same business day shipment. Find more tools and accessories on our website.

Log on today

@ www.Jameco.com

#### **Electromagnetic Radiation Meter**

Electromagnetic radiation is all around us, some of it not so friendly; but until now there's never been an easier, more portable device to detect and measure it. Whether you're concerned about your kid's playground near the power station, the laboratory, microwave oven emissions, or searching for clandestine surveillance devices; the ZAP Checker

can give you a new measure of peace of mind. Its portability and multiple settings allow you to search out EMR whenever and wherever you want, from your home or office environments to hotel suites and conference rooms.

· Range: 10MHz to 4.5GHz

Part No.	Description	Price
217808EX	ZAP checker	\$129.95

# Mini Thermo-Anemometer





Waterproof, pocket size with air velocity, temperature and windchill, all in one. Ideal for checking blowers, fans, exhaust hoods and balancing AC/HT ducts.

- Measures temperature and windchill from 0°F to 122°F (-18°C to 50°C)
- Measures wind speed in ft/min. MPH, m/s, km/h, knots and Beaufort force Auto shut-off
- Large dual display for air velocity and temperature
   Water resistant housing floats and drop tested to 6

 Water resistant housing floats and drop tested to 6' Includes: CR2032 lithium battery and lanyard

Part No. Description Price
218085EX Mini thermo-anemometer \$88.95







XM Satellite Base Receiver 226157EX

#### "...XM Radio is a service I can wholeheartedly recommend." -Walter Mossberg, The Wall Street Journal



Dock it in your home.

Part No.

Radio base receiver & remote

2-15/16"H x 4-11/16"W x 1-1/2"D. Requires docking station to

Home docking kit ..... Includes dock, AC power cord, antenna, and audio cable with twin RCA output jacks.

Antenna extension kit ...... \$34.95

For improved reception with the Home Docking Kit

\* XM Radio subscription currently priced at \$9.95/mo. Sign up via the Web or by calling toll-free once you get your new receiver. Receive complete audio instructions via the receiver. Receiver produces sound only with a docking station.

# Satellite radio with 100 crystal clear channels that follow you everywhere; most commercial free!

Just

1.5"

thick!

Imagine being able to choose from 100 channels of music, broadcast news, sports and talk radio...and taking them everywhere you go. With the Delphi XM SKYFi Satellite Radio system and a subscription to XM Satellite Radio\*, you'll enjoy 100 channels of entertainment, 35 of them commercial-free, anytime, anywhere.

#### What do I need?

With this ingenious, modular system, the "brains" are contained in a palm-sized wireless base receiver small enough to slip into your pocket (#226157EX). Just buy one base receiver and use

it in compatible docking station, wherever the location. Plug the Home Dock into the audio input jacks of your home or office stereo. Just slip the receiver into a dock...

...and 100 crisp, clear satellite stations, including up to 20 of your favorite presets, are yours at the touch of a button. The receiver's 5-line electricorange display shows the currently playing song, artist, and more. You can even see what's playing on other channels before you switch. Narrow your search by category for fast navigation. Or use the jog-wheel to scroll through all the

channels. Includes remote for the ultimate in home or office listening.

The XM Satellite Radio Broadcast System's signal is beamed from two huge earthstation antennas to its broadcast satellites 22,000 miles above the earth. Ground antennas, or repeaters, boost the signal around geographical and architectural obstacles. In fact, the quality of the XM signal is so good, Popular Science rated it "superb, with good dynamics, crisp frequency response and virtually inaudible distortion." Noncommercial programming for XM Radio is produced at the company's 150,000 square foot broadcast centers in Washington DC, Nashville, and Manhattan. The facilities include 82 studios, 20 production suites, 310 audio workstations and an unsurpassed library of digital recordings.

# Retro-style record player with 21st century technology!



Dust off those old LPs and 45s, and get ready for a nostalgic trip to entertainment yesteryear! Lift the cover and spin your vinyl, or pop the top and play your favorite CDs in the same self-contained, stylish table-top package. Plus, a sensitive AM/FM tuner, complete with old-school controls, pulls in your favorite talk and music stations. Makes a great gift for the "cat's meow" in your life, or an elegant addition to any room's décor!

Part No.	Description	Price
285472EX	Turntable CD/record player	
	with AM/FM tuner	\$169.95

Over 99% of our products are in stock!









# Stereo boasts big sound, sleek lines, and even runs on batteries for the patio.

This handsome, all-in-one multimedia stereo creates a "true wall of sound" in your home or office.

This elegantly designed Sanyo stereo system fulfills your audio and aesthetic dreams. You get a stereo amplifier, CD player, cassette deck, digital AM/FM tuner, alarm clock, and two high-quality speakers sculpted into an elegantly sleek work of art. Mount the entire system on the wall for a

zero-footprint solution or on a table-top. Leave the speakers attached, or place them up to

Part No. 211318EX 

12 feet apart for stereo separation. Fill any bedroom, living room, kitchen, bath, office or patio with rich sound.

The large backlit display and 20-key remotecontrol provides control of the entire system from the comfort of your bed or sofa. Preset as many as 20 FM and 10 AM stations. Wake to your favorite radio program, CD or tape. Includes base/treble control and headphone jack.

Price



# See only the controls you need, for each of 8 separate devices!

All remotes change channels, but this one changes itself!

The Kameleon 8 revolutionizes remote control as it simplifies your leisure life. Forget the maze of confusing buttons and complicated keystrokes that make some universal remotes a burden. With a touch, this unique controller transforms itself into the perfect remote for each of your components. For example, choose to control your DVD player, and the cool backlit Kameleon 8 display shows only DVD controls. And it offers the same easy, crystal-clear functionality for up to 8 devices.

Pre-programmed with the world's largest code library, this super remote even guides you interactively through its quick and painless set-up routine. Whatever your remote control needs, the Kameleon 8 will be a change for the better.

Part No.	Description	Price
235521EX	Kameleon 8 <sup>™</sup> universal remote control	\$89.95

# Just say the word, and watch your entertainment system respond.

Speak one command into your 8-device-rechargeable remote control on the table beside you, and it will power up your TV and VCR, turn to channel 3 and press play! Recognizes up to 50 macro voice commands and responds to 4 different multi-lingual voices. Picture-in-picture, shuffle and disc change features make sure you'll never have to get out of your easy chair again.

Part No.	Description	Price
236048EX	8-in-1 voice remote	\$69.95



# Summer 10% Sale OFF

# Star Trek™ fans rejoice!

Now you can control up to 4 home theater devices with this realistic replica from the original spaced-out series. Distinctive light and sound effects will accompany your IR commands as you zap your way through the universe of video entertainment. Order now, and enter the next generation of remote control!

,	Part No.	Description		Price
	236030EX	Phaser universal remote	Was \$39.95	\$34.95

# **Enjoy a clearer signal & more stations with Phillips® antenna.**



Most antennas are big or ugly, maybe even both! Many of the antennas out there are highly directional – so they get in the way when you orient them for best performance. But Phillips® packs a potent punch in a small package. This sleek package houses an omni-directional, powered FM antenna. It's miniature amplifier boosts weak signals so you can actually enjoy previously unlistenable, distant stations. You'll hear dramatically improved reception on both AM and FM bands, from a stylishly small device that hides on any shelf or can be mounted on any wall. Easily installs into any stereo. Includes one  $75\Omega$  to  $75\Omega$  and one  $75\Omega$  to  $300\Omega$  matching transformer.

	O .		
Part No.	Description	Special	Price
225011EV	Dhilling® AM/EM storog antonna	Purchase	¢11 05

## More Products @ www.Jameco.com

# Expandable, great-sounding portable MP3 enjoyment, made affordable from Samsung!



An economical digital music player with top-ofthe-line features is now within reach of any budget. This lightweight, compact 64-megabyte player delivers 60 minutes of your favorite tunes, enhanced by a built-in equalizer with 4 custom presets. This pocket-sized powerhouse features a SmartMedia slot for easy expansion, a backlit display and fast USB connectivity, all at an absolutely unbeatable price.

Part No.	Description	Price
235459EX	Samsung YEPP MP3 player	\$69.95

#### **TV Wall Mounts**

A convenient way to save floor space and provide viewing pleasure for all.

These TV wall mounts are of durable, quality construction.

Cable management system

keeps unsightly cables and cords out of sight. Tilts at the base up to 10 degrees and rotates up to 140 degrees in either direction. Includes mounting hardware and safety straps.

**285915EX:** for small 9" to 13" TV's; holds up to 60 lbs. **285923EX:** for medium 19" to 21" TV's; holds up to 75 lbs. **285940EX:** for large 25" to 27" TV's; holds up to 125 lbs.

Part No.	Description	Price
285915EX	Small TV mount	\$61.95
285923EX	Medium TV mount	79.95
285940EX	Large TV mount	92.95

VEU

# **FM Dipole Antenna**

This dipole antenna is your answer to a clearer, improved FM reception.
This economical antenna is constructed of twin 300 ohm lead cables and the ends are terminated in plastic tabs for

terminated in plastic tabs for easy mounting to the back of your stereo or to the wall.

Part No.	Description	Price
285827EX	FM dipole antenna	\$2.29

# Rabbit Ears Panasonic type

dipole antenna.
Fits most TV receivers.
Retractable antenna.

netractable antenna.		
Part No.	Description	F
285801EX	Rabbit ears	\$









#### **Advantage Series Outdoor Antennas**

Channel Master created the Advantage Series antennas with ease of use and installation in mind! Superior performance, economical pricing, and pre-assembled for ease of installation make this antenna line the perfect choice for the Do-It-Yourselfer. HDTV digital compatible.





Model No.	Recept. Ran VHF/FM	ge (miles) UHF	Dimensions (L" x W" x H")	Tuning Radius	No. of Elem.
3014	25	15	53 x 84 x 2	40"	15
3016	45	30	66 x 84 x 22	41"	24
2001	45	30	27 x 85 x 3	44"	10
3018	60	40	113 x 95 x 22	78"	38

Part No.	Model No.	Price
286846EX	3014	\$34.95
286811EX	3016	47.95
286871EX	2001	23.95
286838EX	3018	79.95

## Mounts and Mounting Hardware



286037EX: 5ft. x 1-1/4" diameter steel mast, 18GA, powder coat paint

285851EX: 6" Heavy duty wall mount; up to 1-1/2" masts; lag bolts included

285878EX: Universal "J" pipe roof/wall mount; 38"L 285860EX: Universal saddle TV mass mount; up to 1-1/4" to 1-1/2" masts

285886EX: Heavy duty tripod mount; 3ft. 1-1/4" diameter legs; up to 1-3/4" diameter mast

285991EX: Pitch pad and lag bolt kit for tripod mount (P/N 285886EX); includes 3 pitch pads and 6pcs. 2" x 1/4" lag bolts

Part No.	Prod. No.	Description	Price
286037EX	1807	5ft. steel mast	\$5.99
285851EX	9032	TV mast wall mount	9.95
285878EX	3009	Universal roof/wall mount	26.55
285860EX	9039	Saddle TV mast mount	7.99
285886EX	9003	Tripod mount	. 24.95
285991EX	9139	Pitch pad and bolt kit*	3.95
* For P/N 2	85886		

#### Remote Control Antenna Rotator

A Channel Master rotator is a mast-mounted, motor-driven device that permits the TV viewer to conveniently rotate the outdoor antenna in any direction to optimize NEW TV reception.



- · Compatible with most remote controls incl. satellite
- Rotation: 1 RPM 69-channel programmable mem.
- Non-volatile mem. holds locations during power failure
- Direct access via TV channel number of digital compass location

Part No.	Prod. No.	Description	Price
286803EX	9521A	Antenna rotator system	\$81.95

#### **75/300**Ω Matching Transformers

 $75/300\Omega$  impedance matching baluns. Bandwidth 5-900MHz UHF-VHF-FM. Gold with protective boot.



Part No.	Prod. No.	Description	Price
285253EX	200-490	Indoor-outdoor balun	\$1.99
285211EX	200-505	Indoor balun	1.49

#### 900MHz MATV Splitters

5-900MHz,  $75\Omega$  MATV low-cost gold F spliter suitable for consumer MATV applications. DC power passing.



Part No.	Prod. No.	Description	Price
285165EX	200-212	2-way	\$3.75
285181EX	200-213	3-way	4.69
285190EX	200-214	4-way	5.69

# F Ground Block NEW

Used in CATV and satellite subscribe grounding. 900MHz single F ground block,

1 ground screw, yellow-chromate

Part No.	Prod. No.	Description	Price
285229EX	200-271	900 MHz single ground	\$1.99

# **Broadband Amplifiers**

- UHF/VHF/FM
   Imped.: 75Ω
- · Low noise, heavy gauge shielded case
- 117VAC @ 60Hz power source
- Bandwidth: 54-890MHz

Size: 3.5"W x 1.5"H x 2.3"D

285237EX: 6dB 2-output; VHF gain: 6dB; UHF gain: 2dB; flatness response: ±2dB 285245EX: 3dB 4-output; VHF gain: 3dB; UHF gain: 0dB; flatness response: ±2dB

Part No.	Prod. No.	Description Price
285237EX	200-652	2-output broadband amplifier \$23.69
285245EX	200-700	4-output broadband amplifier 28.45

# **In-Line Amplifier**

This amplifier will reduce or eliminate the signal losses caused by signal transformers, signal splitters, other in-line devices, or long cables that run between the antenna and receiver system. Amplifies virtually any satellite, TV, or

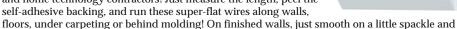
radio signal from 50 MHz to 2,200MHz. • Input capability: 83dB uV min. (7-channel inputs)

Part No.	Description	Price
286053EX	In-line amplifier	\$19.95

#### See back cover for details on our New StealthTenna™ Antenna

# Run home improvement and entertainment flatwire cables anywhere, invisibly!

This invisible innovation is a dream come true for do-it-yourselfers and home technology contractors! Just measure the length, peel the



paint for an amazing wiring installation that's typically only a few hundredths of an inch thick.

	Specifications White Backing										
Part No.		Wire	Gauge	(in.)	(in.)	Curr.	Typical App.	(feet)	Price		
263353EX		8	16	0.75	0.25	13.0A	High wattage audio & lighting	25	\$45.95		
263311EX				0.70	0.20	10.071	I ngn manage addie a ngning	100	159.95		
263370EX	1000	2	18	0.75	0.011	10.0A	Speaker, alarm sirens, low voltage lighting	25	31.35		
263361EX	1000							100	108.95		
263396EX	-	4	18	1.25	0.011	10 0A	Indoor or outdoor pairs for two speakers	25	44.55		
263388EX		·		1.20	0.0	101071	mader or cutacer pains for the speakers	100	154.95		
263417EX		2	75Ω	0.5	0.05	N/A	75Ω video coax for cable TV. video & CCTV	25	41.95		
263409EX			7022	0.0	0.00	14// (	7022 VIGCO COUX FOI CUDIO 1 V, VIGCO Q COTV	100	145.95		
263450EX	-	8	24	0.75	0.05	3.7A	4 pair UTP for 100 base, TX, Cat5 or phone	25	59.49		
263433EX	-		_ '	3.70	0.00	3.771	. Pair 5	100	205.95		
_											

#### Connectors

Compatible connectors for all your flatwire needs.

	3		
Part No.	Description	1	10
265404EX	2 contact terminal for all flatwire	\$.75	\$.65
213031EX	RJ45 jack for P/N 263450EX/263433EX	3.29	2.99
71984EX	RJ11 jack for P/N 263450EX/263433EX	1.39	1.19









285237EX



# Material Satellite IF-VHF/UHF Diplexers







NEW

286150EX 286918EX

These diplexers are used for separating or combining satellite signals, at 950-1250MHz with VHF/UHF signals at 54-806MHz. They include a high pass filter tuned to 950-2150MHz and low pass filter tuned to 54-806MHz. În addition, a DC power pass is provided from the satellite port to the common in order to pass satellite receiver LNB voltage. The power pass feature passes DC through 22kHz for polarization and satellite selection commands using 13/18V, 22 kHz.

Impedance: 75 Ω

Type F female connectors

Part No.	Prod. No.	Description	Price
286133EX	4001IFD	Separating (1 inp. VHF/UHF; SAT out.)	\$9.95
286150EX	4002IFD	Combining (1 out. VHF/UHF; SAT inp.)	17.95
286168EX	4022IFD	Dual comb. (2 out. VHF/UHF; 2 SAT inp.)	29.95
286918EX	4032IFD	Dual comb. (2 out.; 1 VHF/UHF inp.; 1 SAT inp.; DC pass)	23.95

#### Channel Master

## **Dual Satellite Diplexer** Amplified VHF/UHF



The complete one box solution to provide satellite and amplified VHF/UHF signals to two locations in a building from twin LNB and off-air antenna! The two high performance diplexers eliminate UHF LNB noise and any off-air pick-up at satellite frequencies. The VHF/UHF preamplifier is a splitband type and includes FM trapping.



Impedance: 75 Ω

- Noise figure: VHF 3.5dB, UHF 2.5dB
   Size: 1.9"H x 2.5"W x 0.8"D
- Inputs: 3 (LNB A, LNB B, VHF/UHF)
   Outputs: 2 (SAT A & B VHF/UHF)

Part No. Prod. No. Description Dual satellite diplexer ..... 4007IFD 286117EX \$59.95

# Decorator Style Wallplates





285392EX









285325EX





Single gang decorator-style flush plates mounted in standard electrical boxes. High-impact ABS plastic mounting bracket supplied with matching color screws.

RJ-11 jack and gold F-type coupler • 6 micro" gold plated contacts

285350EX

Part No.	Prod. No.	Description 1	5				
285392EX	300-103WH	White plate\$3.29	\$3.15				
285384EX	300-103IV	Ivory plate	3.15				
3-RCA connectors (Yellow-Red-Black) with insulators, gold plated							
285413EX	200-260WH	White plate\$5.99	\$5.49				
285405EX	200-260IV	Ivory plate 5.99	5.49				
F-type gold coupler, $75\Omega$							
285350EX	200-253WH	White plate, single\$3.39	\$2.95				
285341EX	200-253IV	Ivory plate, single	3.39				
285376EX	200-255WH	White plate, dual 4.19	3.95				
285368EX	200-255IV	Ivory plate, dual 4.19	3.95				
Standard RJ	-11 and F-type	coupler					
285325EX	300-234WH	White plate\$2.35	\$2.29				
285317EX	300-234IV	Ivory plate	2.29				
Standard F-1	ype coupler, 7!	5Ω	_				
285288EX	200-251WH	White plate, single\$1.95	\$1.85				
285270EX	200-251IV	Ivory plate, single	1.85				
285309EX	200-252WH	White plate, dual 2.89	2.75				
285296EX	200-252IV	Ivory plate, dual	2.75				

#### Satellite IF Multiswitches



Channel Master's lowest cost multiswitches supply LNB power from the satellite receivers. Intended for use in systems when 117VAC is not available at the distribution point where it is desired to locate a multiswitch, making these units ideal. Includes a VHF/UHF amplifier. As such, at least one satellite receiver must be connected to pass VHF/UHF signals.



• 75 $\Omega$  impedance

- Type F female connector Insertion loss: 5dB
- Noise figure: 7dB • Satellite input frequency range (MHz): 950-1250
- · Isolation cross polarization (output to opposite polarity input): 32
- · Maximum input (dBm, per transponder): -23
- LNB voltage: (nominal 13V, >12V into any output): 11.2
- Size: 6.4"H x 4.2"W x 1.2"D

Part No.	Prod. No.	Description	Price
286934EX	6344IFD	Active VHF/UHF	\$79.95

#### **75** $\Omega$ F Connectors





289828FX



289924FX



290001FX

Part No.	Туре	Description 1	10	50	100
289828EX	RG-59	Crimp-on nickel plated \$.22	\$.20	\$.17	\$.14
289908EX	RG-59	Crimp-on gold plated45	.43	.41	.39
289887EX	RG-6	Crimp-on nickel plated22	.20	.17	.14
289916EX	RG-6	Crimp-on gold plated45	.43	.41	.39
289975EX	RG-59	Twist-on nickel plated	.69	.45	.32
290001EX	RG-6	Twist-on nickel plated	.69	.45	.32
289924EX	RG-6	Crimp-on weatherproof seal69	.59	.49	.39

#### **Belden Coaxial Cables**

## 75Ω Broadband Coax CATV Cable RG6/U Type

18 AWG solid .040" bare copper-covered steel

• DuoBond® II +60% aluminum braid shield

• Gas injected foam polyethylene insulation; black PVC jacket • Color: black – 10

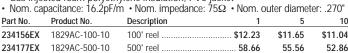
Nom. capacitance: 53.1pF/m • Nom. impedance:  $75\Omega$  • Nom. outer diameter: .270" Part No. Product No. Description 10 233269EX 9116-100-10 100' reel ..... \$17.97 \$16.23 500' reel ..... 233277EX 9116-500-10 51.40 48.73

#### Direct Broadcast Satellite RG6 Type Cable

#### 18 AWG solid .040" bare copper

DuoBond® II +60% aluminum braid
 Color: black – 10

• Gas injected foam polyethylene insulation, PVC jacket



#### 75Ω Standard Analog Video Cable RG59/U Type

#### 23 AWG solid .023" bare copper

• 95% bare copper braid shield • Color: black – 10

Polyethylene insulation and black PVC jacket

Nom. capacitance: 67.3pF/m
 Nom. impedance: 75Ω
 Nom. outer diameter: .242"

Part No.	Product No.	Description	1	5	10
232901EX	8241-100-10	100' reel	\$44.55	\$40.25	\$36.62
232910EX	8241-500-10	500' reel	118.81	107.71	97.91

#### 3-Way Coaxial Switch Box

· Switches from a single input or output source to 3 outputs or inputs . 60dB isolation - shielded housing

• /5\(\Omega\) inb	ut-output • 5-9	UUIVIHZ UHF/VHF/FIVI	
Part No.	Description	1	10
228241EX	Coaxial switch box	\$4.85	\$4.59





#### **Digital Audio Optical Cables and Adapters**









Connect your DVD, CD, Mini Disc, DAT, game console or other digital audio equipment for clear, full and richly detailed sound. For the ultimate listening experience, connect to your Dolby Digital® or DTS® home theater equipment. These cost effective performance TOSLINK type cables give you the cleanest possible signal, even at extreme volume levels for today's audio and home theater applications.

- · Low-loss core provides low distortion and high signal-to-noise ratio
- Clad reflecting layer prevents phase error and noise, achieving high-fidelity transmission effect
- · Corrosion-resistant, precise collar to ensure long lasting quality
- Non-slip rubber grip connector provides for easy installation
- Ultra flexible PVC jacket makes installation, even in hard to reach areas a snap

#### Cables

Part No.	Description	1	2	5
228654EX	3' TOSLINK-TOSLINK	\$3.79	\$3.35	\$2.85
228689EX	3' TOSLINK-mini plug	9.95	8.95	7.95
228662EX	6' TOSLINK-TOSLINK	4.75	4.29	3.79
228697EX	6' TOSLINK-mini plug	16.65	14.99	13.49
228671EX	12' TOSLINK-TOSLINK	7.29	6.59	5.95
228700EX	12' TOSLINK-mini plug	23.29	20.95	18.85
Adapters				
230615EX	TOSLINK – mini plug adapter	\$2.79	\$2.59	\$2.49
230607EX	TOSLINK – TOSLINK coupler	1.89	1.79	1.69

#### Component Video and Audio Cables

Component video cables connect the latest video equipment like DVD players equipped with component video output jacks to LCD or plasma televisions, projectors and other component video devices. By using component video cables, you bypass the TV's Y/C separator and color decoder, routing the color (Y Pr Pb) information directly into the TV's matrix decoder. By sending the pure DVD component signal directly to a component video input-equipped display device, the DVD signal forgoes the extra processing that normally would degrade the image.



- Low-loss  $75\Omega$  oxygen-free copper center conductors and foam dielectric provide maximum signal transfer bandwidth for improved picture quality and performance
- Corrosion resistant, precise 24k gold-plated connectors ensure long lasting quality
- Fully molded color coded connectors attached to an ultra-flexible PVC jacket provides excellent strain relief, easy installation, and identification
- 100%, .012mm aluminum-polyester foil shielding and spiral-wound copper-braid shielding provides clear, noise-free, vivid picture quality
- Bonded construction design for neat, easy connection of component video and audio

Part No.	Description	1	2	5
228620EX	6' component video RGB cable	\$12.35	\$11.15	\$9.99
228638EX	12' component video RGB cable	. 23.75	21.39	19.25
228646EX	25' component video RGB cable	. 33.95	30.59	27.49
229403EX	6' component video RGB and stereo audio cable	. 17.29	15.59	13.99
229411EX	12' component video RGB and stereo audio cable .	. 33.25	29.95	26.95
229420EX	25' component video RGB and stereo audio cable .	. 47.55	42.79	38.55

Find more cables on our website. Visit us at www.Jameco.com.

# **Audio/Video Adapters and Cables**



#### RCA Audio Adapters and Y-Cable

NOA Auu	io Adapters and 1-bable	
Part No.	Description 1	10
228283EX	RCA female jack to mono 1/4" male plug\$.99	\$.89
228312EX	RCA male plug to 1/4" mono female jack	1.10
228267EX	RCA female to female jack coupler, gold plated95	.79
159441EX	RCA female to female jack coupler	.99
228259EX	RCA male to male plug adapter 1.59	1.25
228339EX	RCA F jack to 3.5mm mono M plug, gold plated 1.49	1.29
228291EX	RCA F jack to 3.5mm mono M plug, nickel plated 1.25	1.09
215458EX	RCA male plug to 3.5mm mono female jack	.75
196808EX	5" Y-cable 1/8" stereo F jack to (2) RCA M plugs	.30
139037EX	5' Y-cable 1/8" stereo M plug to (2) RCA M plugs	1.99
228401EX	6' Y-cable (2) RCA M plugs to 3.5mm stereo M plug 1.55	1.39
228371EX	6" Y-cable (2) RCA M plugs to RCA F jack99	.89
228355EX	6" Y-cable RCA M plug to (2) RCA F jacks 1.15	.99
228380EX	6" Y-cable (2) RCA F jacks to 3.5mm stereo plug	1.35

## 3.5mm Audio Adapters and Y-Cable

		•		
)	Part No.	Description	1	10
)	228275EX	3.5mm stereo female to female jack	\$.55	\$.49
)	215440EX	3.5mm mono female jack to 1/4" mono male plug	Was \$-29 .15	.14
)	196082EX	3.5mm stereo female jack to 1/4" stereo male plug	59	.49
9	228321EX	3.5mm mono M plug to 1/4" stereo F jack	1.39	1.15
	228304EX	3.5mm stereo M plug to (2) 1/4" stereo F jacks	2.05	1.85
,	228339EX	3.5mm mono M plug to RCA F jack, gold plated	1.49	1.29
,	228291EX	3.5mm mono M plug to RCA F jack, nickel plated	1.25	1.09
)	215458EX	3.5mm mono female jack to RCA male plug		.75
)	196808EX	5" Y-cable 1/8" stereo F jack to (2) RCA M plugs		.30
)	139037EX	5' Y-cable 1/8" stereo M plug to (2) RCA M plugs	2.25	1.99
)	228398EX	6" Y-cable (2) 3.5mm stereo female jacks to		
)		3.5mm stereo male plugs	1.95	1.65
5	228401EX	6' Y-cable (2) RCA M plugs to 3.5mm stereo M plug	1.55	1.39
)	228380EX	6" Y-cable (2) RCA F jacks to 3.5mm stereo plug	1.65	1.35

#### RCA Plugs

· High-quality plastic and metal housing RCA plugs

Part No.	Description 1	10			
229876EX	Black \$1.89	\$1.69			
229868EX	Red 1.89	1.69			
229884EX	White 1.89	1.69			
230287EX	Yellow 1.89	1.69			
Plastic screw on cover w/ integral cable protection					
Plastic sci	rew on cover w/ integral cable prote	ection			
Plastic sci 229921EX	rew on cover w/ Integral cable prote Black (5 pk)\$1.15	\$1.05			
	,				

Yellow (5 pk) ...... 1.19

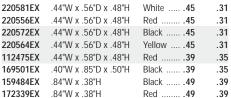
Low-Price Guarantee





#### RCA Jacks • P/N 237016EX: 2x3 grid; † Red/white/yellow

Part No. Description 10 237016EX 2.0"W x .45"D x 1.1"H † ..... \$.89 \$.79 220581FX White ..... .45 .44"W x .56"D x .48"H 220556EX .44"W x .56"D x .48"H 220572EX .44"W x .56"D x .48"H Black ..... .45 220564EX .44"W x .56"D x .48"H Yellow .... .45











Same Day Shipping

99% In Stock



228419EX

228435EX



# **Audio/Video Adapters and Cables**





228582EX





215474EX





206973EX/

29348EX



228486EX



225980EX/

225998EX

Video Adapters

	ap.0.0	
Part No.	Description 1	10
229809EX	S-video 4-pin mini DIN female to female jack	\$2.59
229391EX	S-video male plug to RCA video female jack	4.85
Video/Au	dio Patch Cables	
228216EX	3' stereo video patch cable, gold plated\$1.19	\$1.13
228574EX	25' stereo video patch cable, gold plated	6.29
228582EX	50' stereo video patch cable, gold plated 12.59	11.35
VCR Cab	le	
228224EX	6' stereo VCR cable\$2.39	\$2.29
3.5mm A	udio Patch Cables	
228494EX	6' 3.5mm stereo male to male plug\$1.39	\$1.19
228515EX	6' 3.5mm stereo male plug to female jack	1.35
228507EX	12' 3.5mm stereo male to male plug	1.49
228523EX	12' 3.5mm stereo male plug to female jack	1.49

#### RCA Cables

228443EX/228451EX

228460EX/228478EX

Description	1	10
3' RCA male plug – female jack (gray)	\$.89	\$.79
3' stereo RCA (2) male to (2) male plugs, gold plated	1.49	1.39
4' RCA male to male plug (black)	99	.89
4' RCA male to male plug (yellow)	99	.89
4' RCA (2) male to (2) male plugs (red/black)	1.75	1.45
5' RCA male to male plug	1.19	.99
5' mono RCA male plug to female jack	1.65	1.45
5' RCA stereo (2) male plugs to (2) female jacks	1.25	1.15
5' RCA stereo (2) male to (2) male plugs, gold plated	1.79	1.69
5' RCA (3) male to (3) male plugs, low loss	1.95	1.79
10' RCA female jack to male plug	2.35	1.95
10' RCA male to male plug (yellow)	1.69	1.44
12' RCA stereo (2) male to (2) male plugs, gold plated	2.10	1.89
12' RCA (3) male to (3) male plugs, gold plated	4.49	3.89
20' RCA (3) male to (3) male plugs, gold plated	7.99	6.79
25' mono RCA male to male plug, nickel plated	2.19	2.09
25' RCA stereo (2) male to (2) male plugs, gold plated	2.39	2.29
	3' RCA male plug – female jack (gray) 3' stereo RCA (2) male to (2) male plugs, gold plated	Description         1           8' RCA male plug – female jack (gray)         \$.89           8' stereo RCA (2) male to (2) male plugs, gold plated         1.49           4' RCA male to male plug (black)         .99           4' RCA male to male plug (yellow)         .99           1' RCA (2) male to (2) male plugs (red/black)         1.75           5' RCA male to male plug         1.19           5' mono RCA male plug to female jack         1.65           5' RCA stereo (2) male plugs to (2) female jacks         1.25           5' RCA stereo (2) male plugs to (2) female jacks         1.79           6' RCA (3) male to (3) male plugs, low loss         1.95           10' RCA female jack to male plugs, low loss         1.95           10' RCA male to male plug (yellow)         1.69           12' RCA stereo (2) male to (2) male plugs, gold plated         2.10           12' RCA (3) male to (3) male plugs, gold plated         4.49           20' RCA (3) male to (3) male plugs, gold plated         7.99           25' mono RCA male to male plug, nickel plated         2.19           25' RCA stereo (2) male to (2) male plugs, gold plated         2.39

#### S-VHS Cables

Low-loss fully shielded Super-VHS cables, 4-contact mini DIN plus S-VHS cable and dual-RCA plug stereo cables.

- · Fully-molded color coded gold RCA connectors
- Flexible black PVC jacket
- · Applications: home theaters DSS receivers, Super-VHS VCRs, camcorders, and DVD players

# 228558EX/228566EX: 95% spiral wound shield

S-VHS/audio conductors		3558EX
Part No.	Description 1	10
228591EX	6' S-VHS cable, gold plated\$2.15	\$1.95
228558EX	6' S-VHS audio-video cable, gold plated	11.65
228566EX	12' S-VHS audio-video cable, gold plated14.95	13.45
228603EX	12' S-VHS cable, gold plated	2.35
228611EX	25' S-VHS cable, gold plated	3.85

## 3.5mm Female Jacks and Male Plugs





• Threaded screw on housing • 1mm diameter solder eyelets • Shield crimp tabs 231159EX/231167EX: With spring strain relief

Part No.	Mfr. Cross Ref.	Description 1	10
109495EX	PJ035PM	Mono female jack 3.5mm hole size \$.45	\$.40
165729EX	PJ0354	Mono female jack 3.5mm hole size	.59
101151EX	PJ1035	Mono male plug, plastic55	.43
147344EX	PJ1035L	Mono male plug, plastic Was \$.64 .55	.43
231159EX	AP-336	Mono male plug, metal 1.25	1.19
231175EX	AP-340	Stereo male plug, plastic	.43
231167EX	AP-343	Stereo male plug, metal	1.60

#### Belden Multi-Conductor Audio, Control, and Instrumentation Cables Non-Plenum

22 AWG stranded (7 x 30) shielded caps with 22 AWG stranded TC drain wire

8444 Series



228591EX

NEW

Polyethylene insulation
 Color: chrome – 60

				Outer			
Part No.	Product No.	Conduc.	Capacitance	Diameter	Description	1	5
234190EX	8761-500-60	2	79pF/m	.175"	500' reel \$	95.57	\$86.69
234189EX	8761-1000-60	2	79pF/m	.175"	1000' reel 1	73.74	159.25
233234EX	8771-100-60	3	75pF/m	.199"	100' reel	36.36	30.55
233242EX	8771-500-60	3	75pF/m	.199"	500' reel	99.53	94.53
234179EX	8723-100-60	4	115pF/m	.168"	100' reel	21.96	19.93
234181EX	8723-500-60	4	115pF/m	.168"	500' reel	95.94	86.12

#### 22 AWG stranded (7 x 30) unshielded caps

• PVC insulation • Color: chrome – 60

					1000		
Part No.	Product No.	Conduc.	Capacitance	Outer Diameter	Description	1	5
232995EX	8442-100-60	2	75pF/m	.199"	100' reel \$1	1.21	\$10.10
233007EX	8442-500-60	2	75pF/m	.199"	500' reel 5	1.62	48.91
233023EX	8443-100-60	3	75pF/m	.199"	100' reel 1	5.69	14.23
233031EX	8443-500-60	3	75pF/m	.199"	500' reel 7	2.78	68.96
233058EX	8444-100-60	4	75pF/m	.199"	100' reel 2	0.10	18.22
233066EX	8444-500-60	4	75pF/m	.199"	500' reel 9	2.98	88.06

#### **Switchcraft** 1/4" Phono Jacks and Male Plugs

	281789EX	281754EX 281746EX	
Part No.	Mfr. Cross Ref.	Description 1	10
281789EX	297 🛧	1/4" stereo phone audio plug, metal \$4.59	\$3.82
281771EX	280 🛧	1/4" mono phone audio plug, metal 3.15	2.82
281762EX	267 ♠	1/4" stereo phone audio plug, black plastic 4.25	3.22
281754EX	250 ♠	1/4" mono phone audio plug, black plastic 2.55	2.39
281746EX	12B <b>♠</b>	1/4" stereo phone audio jack 1.49	1.39
281738FX	11 ▲	1/4" mono phone audio jack 1 39	1 20

#### Switcheraft Pro Audio Jacks and Plugs

2	277026EX	281640EX 281594EX	281674EX
Part No.	Mfr. Cross Ref.	Description 1	10
281560EX	A3M <b></b>	3-pin male microphone, metal\$3.89	\$3.27
277026EX	A3F ♠	3-pin female microphone, metal 4.49	3.99
281640EX	D3F ♠	3-pin female microphone, metal, panel mount 5.89	4.50
281594EX	A4M ♠	4-pin male microphone, metal	4.08

D4M • 4-pin male microphone, metal, panel mount .. 5.19 ♦ These products ship from a separate warehouse. Each warehouse will accrue separate shipping charges.





5.56

281586EX

A4F ♠

#### Intel® Processor-Based Motherboards

These Intel® motherboards provide the ultimate in speed, compatability and confidence, making them ideal for desktop systems and embedded solutions alike. Pentium® 4 and Celeron® based configurations.









COLOR CODE LEGEND...
NEW SALE REFURBISHED CLOSEOUT





NEW







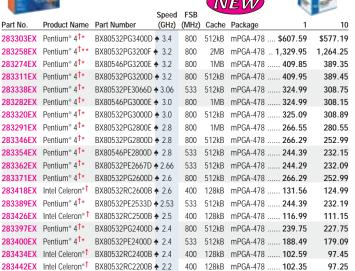
♦ These products ship from a separate warehouse. Each warehouse will accrue separate shipping charges.

Jameco			Internal	Board	Processor	Support FSB			Memory Type	Max. Memory/									Jameco	Pricing	.g
Part No.	Model No.	Mfr.	Name	Style	Support	(MHz)	Chipset	Graphics	(SDRAM)	Slots	Expansion Slots	Audio	USB Ports	HDD	On-Board LAN	Board Size	Wt. (lbs.)	Warranty	Part No.	1	10
285106EX	BOXD875PBZLK ❖	Intel	Bonanza	microATX or µATX	Pentium® 4	800 / 533	i875P	None	DDR 400/333	4GB / 4	5 PCI 32bit/33MHz	None	USB 2.0	2-ports SATA150 (1.5Gb/s)	Intel® PRO/1000CT	11.52" x 9.6"	2.9	3 years Itd.	285106EX	\$225.59	\$214.29
											AGP 8x/4x		6 Back / 2 Front	RAID 0; 2-ports ATA 100	(Gigabit)						
285093EX	BOXD865PERLL ♠	Intel	Rock Lake	microATX or µATX	Pentium® 4/	800 / 533 / 400	i865P	None	DDR 400/333/266	4GB / 4	5 PCI 32bit/33MHz	Full 6-channel surround sound +	USB 2.0	2-ports SATA150 (1.5Gb/s)	PRO/100 (10/100)	12" x 9.6"	3.1	3 years Itd.	285093EX	164.15	155.95
					Celeron®						AGP 8x/4x	optical output with jack sensing	4 Back / 4 Front	RAID 0; 2-ports ATA 100							
285077EX	BOXD865GBFL ♠	Intel	Bayfield	microATX or µATX	Pentium® 4	800 / 533 / 400	i865G	Intel Extreme	DDR 400/333/266	4GB / 4	6 PCI 32bit/33MHz	Flexible 6-channel audio	USB 2.0	2-ports SATA150 (1.5Gb/s)	PRO/100 (10/100)	11.6" x 9.6"	2.8	3 years Itd.	285077EX	144.99	137.79
				Celeron®				Graphic 2			AGP 8x/4x	with jack sharing	4 Back / 4 Front	2-ports ATA 100							
285085EX	BOXD865GLCL ♠	Intel	La Crosse	microATX or µATX	Pentium® 4	800 / 533	i865G	Intel Extreme	DDR 400/333	4GB / 4	3 PCI 32bit/33MHz	Full 6-channel with jack sensing	USB 2.0	2-ports SATA150 (1.5Gb/s)	PRO/100 (10/100)	9.6" x 9.6"	2.5	3 years Itd.	285085EX	142.09	134.95
				Celeron®				Graphic 2			AGP 8x/4x		4 Back / 4 Front	2-ports ATA 100							
285122EX	BOXD865GRHLK ♠	Intel	Rock Harbor	microATX or µATX	Pentium® 4/	800 / 533 / 400	i865G	Intel Extreme	DDR 400/333/266	4GB / 4	3 PCI 32bit/33MHz	Integrated AC97 audio	USB 2.0	2-ports SATA150 (1.5Gb/s)	Intel® PRO/1000CT	9.6" x 9.6"	2.5	3 years Itd.	285122EX	177.95	168.35
					Celeron®			Graphic 2			AGP 8x/4x		4 Back / 4 Front	2-ports ATA 100	(Gigabit)						
285114EX	BOXD845GVSRL ♠	Intel	Seabreeze	ATX	Pentium® 4/	533 / 400	i845GV	Intel Extreme	DDR 333/266	2GB / 2	3 PCI 32bit/33MHz	Integrated AC97 audio	USB 2.0	2-ATA 100 / 66	Intel® PRO/100 (10/100)	9.6" x 8.2"	2.1	3 years Itd.	285114EX	83.45	79.29
					Celeron®			Graphic					4 Back / 4 Front								



# Intel® Desktop Processors

sktoh	PI	00622012	- 8
Snood	FSR	NEW	



† Includes active heat sink; \* Hyper-threading technology; \*\* Extreme edition processor w/ hyper-threading technology These products ship from a separate warehouse. Each warehouse will accrue separate shipping charges.

283451EX Intel Celeron® BX80532RC2000B ★ 2.0 400 128kB mPGA-478 ......

#### **Legacy Processors**

#### Pentium III/Pentium II/Pentium MMX/Pentium

Part No.	Description	Speed (MHz)	Package	1	10
183118EX	Pentium® III processor	600	Slot 1 \$459.95 \$1 Slot 1 \$424.99	17.59	\$111.75
183100EX	Pentium® II processor	400	Slot 1 \$424.99	99.95	94.95
151651EX	Pentium® II processor	300		89.95	85.45
190060EX	Pentium® II w/ heat sink	233	Slot 1	89.95	79.95
150501EX	Pentium MMX® processor	233	376/PGA	69.95	62.95
140054EX	Pentium MMX® processor %	200	376/PGA	49.95	37.45
130841EX	Pentium® processor	166	296/PGA	49.95	37.45
130833EX	Pentium® processor	133	296/PGA	39.95	29.95
118421EX	Intel 486DX2 processor 📽	66	168/PGA	19.95	14.96

₩ Pull

Turn your PC into an electronic work of art. See pages 74-75 for accessories.



#### **CPU Heat Sinks and Fans**







216506FX













• Excellent for avoiding CPU overheating during extended system on-time • Easy installation – just snap it in High efficiency cooling fans

Part No.	Description	Size (H" x W" x D")	Approvals 1	10
206244EX	Heat sink w/ dual fan slot (SECC 2)	5.25 x 1.95 x 1.30	CE \$12.95	\$11.65
181278EX	Heat sink w/ fan for socket 7 (ATX)	2.12 x 2.05 x 1.67	UL/CE/CSA 8.49	7.65
216506EX	Heat sink w/ fan for socket 7 (AT/ATX)	1.95 x 2.05 x 1.37	CE \$9.9 <sup>5</sup> 8.49	7.65
190545EX	Heat sink w/ fan for socket 370	2.45 x 2.42 x 2.10	— 14.25	13.55
185607EX	Heat sink w/ fan for socket 7 & 370	0.98 x 2.37 x 2.40	CE 14.95	13.49
118092EX	Heat sink w/ fan for 586 CPU w/ snap	2.18 x 2.30 x 0.86	UL/CE/TUV 4.95	4.49
129226EX	Heat sink for 486 CPU – adhesive back	1.70 x 1.63 x 0.36	— 2.95	2.65
129234EX	Heat sink for 486 CPU – adhesive back	1.70 x 1.64 x 0.66	— 2.95	2.65
191636EX	Heat sink w/ fan for 486 CPU w/ clip	1.85 x 1.92 x 0.72	UL/CE/TUV 5.95	4.45
174115EX	Heat sink w/ fan for 486 CPU w/ snap <sup>†</sup>	1.93 x 1.96 x 0.93	UL/CUL 3.95	2.96

<sup>† 14&</sup>quot; lead wires

#### **Thermoelectric Cooler Chips**

- Cools down to -30°C (dependent on external temp.)
- Temperature max. = 60°C 20 AWG wire leads, 4" long Heat or cool by changing direction of current
- Operating voltage: 15.4VDC nominal
- Mfr. Cross Current Couples\* Watts (max.) DC (max.) A (L" x W" x T") 172030EX | TEC30 19.7 1.2 x 1.2 x 0.2 **\$19.95 \$17.95** 71 8.4 172048EX | TEC40 127 35.6 15.4 1.6 x 1.6 x 0.2 25.95 22.95 4 127 79.1 15.4 8 2.0 x 2.0 x 0.2 **33.75 29.35**

# Seagate C

# **Hard Disk Drives**

#### 3.5" LP UATA/100 Disk Drives

					Seek	Cache		
Part No.	Model No.	Capacity	Interface	RPM	(ms)	(MB)	Warranty	10
284891EX	ST3200822A ♠	200GB	UATA/100	7200	8.5	8	3 yrs <b>\$198.4</b> 9	\$188.59
284867EX	ST3160021A ♠	160GB	UATA/100	7200	8.5	2	1 yr 148.65	141.19
284883EX	ST3160023A ♠	160GB	UATA/100	7200	8.5	8	3 yrs <b>159.9</b> 5	152.35
284824EX	ST3120022A ♠	120GB	UATA/100	7200	8.5	2	1 yr 128.15	121.75
284859EX	ST3120026A ♠	120GB	UATA/100	7200	8.5	8	3 yrs 136.89	129.99
284808EX	ST380011A ♠	80GB	UATA/100	7200	8.5	2	1 yr 103.89	98.69
284761EX	ST340015A ♠	40GB	UATA/100	5400	12.5	2	1 yr 78.89	74.95
284744EX	ST320014A ♠	20GB	UATA/100	5400	12.7	2	1 yr <b>72.2</b> 9	68.69
2 5" I D	SATA/150 D	ick Driv	,OC					
3.3 LF	SATA/130 D	וווע אכוי	/63					

284921EX       ST3120026AS ★       120GB       SATA/150       7200       8.5       8       3 yrs 147.15       139.79         284904EX       ST380013AS ★       80GB       SATA/150       7200       8.5       8       1 yr 111.99       106.39	284939EX	ST3160023AS ♠	160GB	SATA/150	7200	8.5	8	3 yrs <b>\$174.99</b>	\$166.29
284904EX ST380013AS ♦ 80GB SATA/150 7200 8.5 8 1 yr 111.99 106.39	284921EX	ST3120026AS ♠	120GB	SATA/150	7200	8.5	8	3 yrs 147.15	139.79
	284904EX	ST380013AS <b>♦</b>	80GB	SATA/150	7200	8.5	8	1 yr <b>111.99</b>	106.39

#### 2.5" UATA/100 Mobile Disk Drives

284955EX ST94011A ♠	40GB	UATA/100	5400	12	2	3 yrs <b>\$173.19 \$164.55</b>			
284963EX ST94811A ♠	40GB	UATA/100	5400	12	2	3 yrs 180.55 171.55			
284947EX ST92011A ♠	20GB	UATA/100	5400	12	2	3 yrs <b>120.35 114.35</b>			
♦ These products ship from a separate warehouse. Each warehouse will accrue separate shipping charges.									

# Legacy 3.5" Hard Disk Drives\*

Capacity	Description	Warranty	1	10
20.0GB	Ultra ATA/133	3 mos	\$74.95	\$71.29
15.0GB	IDE <b>%</b>			62.95
13.0GB	IDE (ATA-4)	3 mos	64.95	58.45
10.2GB	IDE			56.95
9.1GB	Ultra-wide SCSI SCA #	3 mos	\$60.00 49.95	44.95
4.3GB	EIDE/Ultra DMA33 🗱	1 year	49.95	45.95
4.0GB	HH Fast SCSI-II (1.5") 🗱	0 111001 1111111111		26.69
2.5GB	EIDE/Fast ATA-2 %	1 year	\$69.90 49.95	44.95
1.7GB	IDE/Fast ATA-2 🗱	1 year	39.95	35.95
1.27GB	IDE 🔐	1 year	35.95	32.35
850MB	IDE 🔐	1 year	59.95	53.95
425MB	IDE <b>%</b>	3 mos	59.95	53.95
	20.0GB 15.0GB 13.0GB 10.2GB 9.1GB 4.3GB 4.0GB 2.5GB 1.7GB 1.27GB 850MB	20.0GB Ultra ATA/133  15.0GB IDE %  13.0GB IDE (ATA-4)  10.2GB IDE  9.1GB Ultra-wide SCSI SCA %  4.3GB EIDE/Ultra DMA33 %  4.0GB HH Fast SCSI-II (1.5") %  2.5GB EIDE/Fast ATA-2 %  1.7GB IDE/Fast ATA-2 %  1.27GB IDE %  850MB IDE %	20.0GB       Ultra ATA/133       3 mos.         15.0GB       IDE \$\$       3 mos.         13.0GB       IDE (ATA-4)       3 mos.         10.2GB       IDE       3 mos.         9.1GB       Ultra-wide SCSI SCA \$\$       3 mos.         4.3GB       EIDE/Ultra DMA33 \$\$       1 year         4.0GB       HH Fast SCSI-II (1.5") \$\$       3 mos.         2.5GB       EIDE/Fast ATA-2 \$\$       1 year         1.7GB       IDE/Fast ATA-2 \$\$       1 year         1.27GB       IDE \$\$       1 year         850MB       IDE \$\$       1 year	20.0GB         Ultra ATA/133         3 mos.         \$74.95           15.0GB         IDE \$8         3 mos.         \$79.00         69.95           13.0GB         IDE (ATA-4)         3 mos.         \$97.15         64.95           10.2GB         IDE         3 mos.         \$76.05         59.95           9.1GB         Ultra-wide SCSI SCA \$8         3 mos.         \$60.00         49.95           4.3GB         EIDE/Ultra DMA33 \$8         1 year         49.95           4.0GB         HH Fast SCSI-II (1.5") \$8         3 mos.         \$96.50         29.35           2.5GB         EIDE/Fast ATA-2 \$8         1 year         \$69.95         49.95           1.7GB         IDE/Fast ATA-2 \$8         1 year         39.95           1.27GB         IDE \$8         1 year         59.95           850MB         IDE \$8         1 year         59.95

★ Pull 
★ Manufacturers may vary and capacity may exceed specification

# **DIMM and SIMM Memory**

			140070			
Part No.	Mfr. Cross Ref. No.	Capacity	Description	Config.	Pins	1 1
285000EX	KVR400X64C3A/1G	1024MB	DDR400 <b>♠*</b>	128M x 64	184 <b>\$498</b> .4	49 \$473.5
284998EX	KVR400X64C25/512	512MB	DDR400 <b>♠*</b>	64M x 64	184 <b>166.</b> 3	35 157.9
285026EX	KVR266X64C25/512	512MB	DDR266 **	64M x 64	184 <b>154.</b> 9	99 147.2
285018EX	KVR266X64C25/256	256MB	DDR266 **	32M x 64	184 <b>85.8</b>	39 81.5
285042EX	KVR133X64C3/256	256MB	PC133 <b>★*</b>	32M x 64	168 <b>90.</b> 6	55 86.1
285034EX	KVR133X64C3/128	128MB	PC133 <b>★*</b>	16M x 64	168 <b>49.</b> 4	45 46.9
148419EX	16MBX64SDRAM	128MB	10ns Syn. DRAM DIMM	16M x 64	168 65.9	95 59.9
148401EX	8MBX64SDRAM	64MB	10ns Syn. DRAM DIMM	8M x 64	168 28.5	50 26.9
148451EX	JEED07264	64MB	60ns SIMM EDO	16M x 32	72 <b>29.</b> 9	95 28.4
148398EX	4MBX64SDRAM	32MB	10ns Syn. DRAM DIMM	4M x 64	168 <b>16.</b> 9	95 15.9
130711EX	JEED07216	16MB	60ns SIMM EDO	4M x 32	72 11.3	35 10.3
130729EX	JEED07208	8MB	60ns SIMM EDO	2M x 32	72 9.9	95 7.4
75133FX	P361000-XX-6	4MB	AMMI2 2nna	1M v 36	72 <b>12 (</b>	5 11 6

♦ These products ship from a separate warehouse. Each warehouse will accrue separate shipping charges.

# 1.44MB 3.5" Internal Floppy Disk Drive

# TEAC.

· IBM PC/XT and higher compatibles

· Compatible with DOS versions 3.3 or higher

	ines ii disk is	•	-
Part No.	Product No.	Color	Size

t No.	Product No.	Color	Size	1	10
490EX	FD235	Beige	4.0"W x 5.9"D x 1.0"H	\$21.95	\$19.95

## **Internal IDE CD-ROM Drives**

- 5.25" half-height design Manufacturer varies

#### Includ

des: Audio cable	SALE

1	11	Weight (lbs.)	kB/sec.	Buffer	Speed	art No.
\$24.9	\$ <del>29.</del> 95\$27.95	2.6	3600	256kB	24x	49307EX
30.9	35.95	2.6	7200	128kB	48x 🗱	89077EX
29.9	39.95	2.3	8400	128kB	56x	89448EX



189448EX

# 200 to 400-Watt PC Power Supplies

Part		Product	Watts	Output	Input	Input Connector	Output Connector		Size	Weight	Pric	cing
Number	Mfr.	Number	(W)	(VDC/A)	(VAC @ Hz)	(Mating Connector/Cord)	(Mating Connector)	Certification	(L" x W" x H")	(lbs.)	1	10
201435EX	Xtreme	EPA400	400	+3.3/33, +5/45, +12/15,	115/230 @ 47-63	3-prong AC receptacle	ATX	UL/CSA/TUV/CE	5.6 x 5.9 x 3.4	5.0	\$109.99	\$89.95
	Power			+5VSB/1, -5/1, -12/1	switchable	with 6' power cord						
152514EX	High Power	JE8250	250	+3.3/16, +5/25, +12/10, +5VSB/1.5, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV	5.5 x 5.9 x 3.4	3.3	49.95	44.99
174465EX	Logic Concept	LC250C	250	+5/20, +12/10, -5/0.5, -12/0.5	110/220 @ 50-67 switchable	3-prong AC receptacle with 6' power cord	AT	UL/CSA/TUV/CE	5.5 x 5.9 x 3.4	2.0	54.95	49.46
172822EX	Mean Well	AA-230	200	+5/20, +12/8, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	AT	CSA/TUV/CE	6.0 x 4.6 x 3.4	2.6	49.95	44.96





Couples: # of P&N type semiconductor pairs connected electrically in series

# COLOR CODE LEGEND... NEW SALE REFURBISHED CLOSEOUT

# Pocket "secretary" captures all your great ideas.

Once you begin to use this sleek, feature & accessory-packed tapeless recorder, you'll wonder how you ever got along without it. Record up to 396 addressable messages totaling 2 hours (SP) or 4 hours (LP) (model 285499EX) or 9 hours (SP) or 18 hours (LP) (model 237198EX). They can be meetings, phone conversations, and audio from external devices, all in flawless

digital clarity. USB connectivity quickly downloads your recordings to your PC. Included accessories: earphone, external (meeting) microphone, telephone adapter, audio cable,



SHIPS CHIEF CHIEF

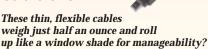
DINE

Includes all the accessories needed!

PC software, USB cable, and hand strap.

Part No.	Description	Price
285499EX	Digital USB voice recorder, 2-4 hrs	\$89.95
237198EX	Digital USB voice recorder, 9-18 hrs	129.95

# Zip, you're wired. Zip, its gone. **Disappearing** cable trick.



Don't you hate lugging those heavy, bulky cables around with your laptop? Now, you don't have to. ZipLinq USB and Firewire cables are as lightweight, thin and flexible as a shoelace, and they store themselves tangle-free in a case the size of a quarter. To connect the cable, take a connector in each hand and pull to the length you need, up to 2-1/2'. Ready to roll? Tug gently, and the cable zips neatly into its case like a window shade.

Part No.	Description	Price
226405EX	Firewire M 4-pin to firewire 4-pin	\$11.95
227424EX	Firewire M 6-pin to firewire 4-pin	11.95
227459EX	Firewire M 6-pin to firewire 6-pin	11.95
226392EX	USB A to mini USB 5-pin	9.95
226384EX	USB A to mini 4-pin	9.95
226376EX	USB A M to USB F	9.95
226368EX	USB A to USB B	9.95

#### **USB Thumb Drives**

What better way to keep your data safe than to keep it close to you? Thumb



drives are compact and fit easily in your pocket or hang it around your neck. Portable and lightweight, no external power needed. No drivers necessary for Windows® ME and above. Windows® 98/98SE drivers available on www.Jameco.com.

<ul> <li>10 year</li> </ul>	data retention • Size: 2.9"L	_x 0.7"W :	x 0.4"H
Part No.	Description	1	10
217761EX	32MB	. \$36.45	\$29.95
217779EX	64MB	46.75	43.95
217787EX	128MB	79.15	71.95
217795EX	512MB	. 189.95	185.95

## Add USB versatility to your computer with one-step, pocket-sized ease!

Instantly add more USB 1.1 ports to your desktop or notebook computer with this compact, compatible hub. Perfect for your laptop case, it tucks into any available space to provide plug-and-play versatility,

on your desk or on the road. Whether you're a PC power user or a Mac fanatic, this hub will seamlessly expand your hardware horizons.

Part No.	Description	1	5
233365EX	4-Port mini hub	Was \$9.95 \$8.59	\$7.39

#### A DC adapter that **REALLY adapts!**

Replace your lost or faulty wall adapters with this one-stop, all-purpose switching power supply.

Simply select from six output voltages (3, 4.5,

6, 7.5, 9 and 12 volts), choose the appropriate polarity, then pick the DC plug that fits the application (8 are supplied). Perfect for travelers, it's lightweight, versatile, and compact!

Part No.	Description	Price
239564EX	Compact travel power supply	\$22.95

Log on Today! www.Jameco.com

# Now you can have a mobile office!



BackOffice/Laptrap Protect your mobile computer with the BackOffice and Laptrap cases. Mil spec hardware and edge bound seams complement the shock-absorbing foam to

protect your precious hardware and data. When arriving

at your destination, simply unfold either case and you're ready to get to work. Gotta run? Just fold and go!

The BackOffice includes a shoulder harness and holds computers up to 14"x11"x2". Highly organized pockets can replace your briefcase, allowing you to carry essential office tools together with your computer!



Stylish Vertical

Harness for Laptrap

The Laptrap is a streamlined version with less pocket/storage space. It includes a padded sleeve that protects computers up to 14"x11"x1-3/4", and flaps for lap use. Optional shoulder harness.

Part No.	Description	Price
261411EX	BackOffice laptop case	. \$149.95
261518EX	Laptrap laptop case	59.95
261569EX	Optional shoulder harness for laptrap	14.95

#### **Mobile PDA Pocket Printer**

Palm-sized computers and PDAs are great, but printed output can be a challenge. Enter the Pocket Printer with it's internal batteries and wireless IR Only 1.0" or serial-cable in height connections. This miniature wonder

puts printer power in your pocket, at an unbeatable price. Now, you can output sharp text and continuous-tone graphics, anywhere and anytime. Everything you need is in the box: paper, serial cable, AC adapter, travel bag and software for popular PDAs and desktops.

Part No. Description Mobile pocket printer Was \$44.95 \$34.95

# Charge and sync your PALM or IPAQ with one cable—thin as a shoelace.

A boon for frequent travelers, ZipLing manage all your PDA power and data transfer functions with a single cable. No charger cradle needed.

Imagine being able to charge the battery on your PDA, sync it to your PC, and download contacts...all with a single cable as flexible as

a shoestring. If you're always on the go, the ZipLinq PDA cable is your new best friend. Lighter and more flexible than any cable you've ever seen - even a phone cord -ZipLing

transfers data at speeds up to 12 Mbps while simultaneously charging your PDA battery. When it's done, the 2-1/2' cable zips away into a

durable case the size of a coat button. Now you see it... now you don't.

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Part No.	Description		Price
226350EX	Palm Sync-N-Charge for		
	ME00s, 1750 and M130	Was \$11.95	\$9.95
226333EX	IPAQ Sync-N-Charge		
	for 36xx and 37xx series	Was \$11.95	9.95
226341EX	IPAQ Sync-N-Charge		
	for PC38x, 39x and 5400	series	9.95





# This is so cool, you'll be its greatest fan!



Because you can't be too rich or too cool, take advantage of a great deal on this innovative personal USB-powered fan for laptop computing! You'll enjoy the added comfort of features like a flexible gooseneck mount, soft nylon blades and quiet motor. No batteries needed; it draws a tiny amount of power from your laptop's battery.

Part No.	Description	Price
256461EX	Mobile USB fan	\$8.99

# Light up your laptop and work anytime, anywhere!



Whenever and wherever you need light on your keyboard, this USB-powered, flexible, plug-and-play LED lamp will deliver. Think of the applications! Now, you can discreetly illuminate your keyboard as you navigate your presentations in darkened boardrooms, or work on the plane without disturbing others with overhead lights. Easy, innovative, and economical!

Part No.	Description	Price
256436EX	Mobile USB light	\$9.99

# Burn CDs on the go, with no AC power!

Barely bigger than a CD, this self-contained burner packs a super set of features into a compact, portable package. USB 2.0 lets you write your discs at 8x speed and read at 24x speed. Plus, this mobile unit gets all the power it needs from the computer connection and its built-in rechargeable lithium ion battery pack. Includes USB 2.0 cable, wall charger, Nero video/audio/data mastering software, manual and case. Supported operating systems: Win® 98 SE/ME/2000/XP.

Part No.	Description	Price
243061EX	Portable CD-R/RW drive	\$129.95



Just slightly bigger than a CD-ROM!

# Put more power in your points with this presentation sensation.

The best presenters know to "keep it simple," and this pen-sized presentation pal is the essence of simplicity. It provides easy, wireless "forward/backward" control of your Power Point slides, and incorporates a laser pointer into its go-anywhere, pen-format design. Bluetooth technology means plug-and-play set-up and solid control from up to 45 feet away!

some conditions up to 10 feet away.		
Part No.	Description	
256428EX	Smart pointer presenter	

With

Price

\$89.95

Control your electronic slides from up to 45 feet away!

# Flexible USB Cable and Adapter

FlexUSB™ is a compact, lightweight accessory that bends, rotates, and flexes to your desired angle. It provides a means to position USB devices, allowing you the means to use it with any computer in even the most cramped environment. Its unique ratcheting design makes it possible to position your USB devices that is compatible with both Windows and MAC platforms.

Part No.	Description	Price
262078EX	Flexible USB adapter A M-F	\$10.95
262158EX	Flexible USB cable with A-M to B-M connectors	14.95

Flexible USB cables and adapters make plugging in cables an ease, especially in tight spots!

# Video conference on the road with this light, flexible camera.

Now you can add video capability to your laptop without the bulk and bother of previous older

technology. This USB camera is feather-light, but feature-heavy! The flexible gooseneck mount allows effortless positioning, and its fixed-focus, auto-exposure design means you'll capture great pictures with ease.

Part No. Description		Price
262300EX	Mobile USB webcam	\$19.95

# Print up to 100 feet away, wirelessly!

Convenience and ease-of-use are what the wireless revolution is all about, and this kit will

easily make your current printer conveniently cable-free! Now you can place your printer where you want it, not just where the cable will reach. Easy, plug-and-play USB installation means set-up is trouble-free, too. Works with many Canon, Epson, HP and Lexmark printers; and Windows\* XP/2000/ME/98 or Mac OS X v10.2.

Part No.	Description	Price
235133EX	Wireless printer kit	\$89.95



Simply plug one unit into your computer, the other into your printer and you are ready for wireless printing. No more messy cables!

# **QTRONIX.** 17-Key PS/2 Keypad

A compact keypad designed for use with IBM compatible laptops and desktop PC.

- Auto-repeat function
- Tactile click-sound and touch
- Switch life of 20 million cycles
- · For IBM PS/2 and compatibles
- Two key roll over
- Two key roll over
   One-year warranty
- Size: 5.6"L x 3.4"W x 0.9"D
- Installs into 6-pin mini DIN keyboard connector (no software required)

Part No. Description		1	10
151811EX	Scorpius 20PB	\$34.95	\$31.49

#### **Business Card CD-R Kit**



This business card size CD-R kit includes twelve 50MB capacity CD-R disks and sleeves, 16 labels and label design software. You can print your personal or business information and burn company brochures, photos, sales presentations, business reports and so on. A great way to show your resume or promote your business in trade shows and exhibits. Easy to carry and cost-effective. Part No. Description Price 249308EX Business Card CD-R kit .....

40.	$\sim$ D	П	100	Pack
40 X	UD:	-ĸ	IUU	Pack

- 700mb
- · Speed: 48x
- 80 minutes 100 pack



#### Label printer with mouse pad saves space!

This combination mouse pad and mini-printer makes labeling chores simple, affordable and fun. Labeling videotapes, envelopes, binders and files is one-click easy! Highlight text in your document, choose a pre-defined phrase, or type labels directly and your 18mm label pops out, ready-to-use. Compatible with Microsoft Windows® 98, 98SE and 2000 Professional PCs with USB.

Part No.	Description	Price
235483EX	Mouse pad label printer	\$11.95



# Cool, professional disc labels, made easy!

Now you can economically label your music CDs, business presentations, DVD compilations and multimedia portfolios like a true professional. Whether you choose standard-size discs, minidiscs or business-card media, this kit will help you design, print and apply the perfect label for your needs. Exact-fit applicator makes precise labeling quick and easy. Order refill kits now, too, in Gloss (LK4) or Matte (LK5) finishes, or choose a versatile kit (LK3) packed with jewel case inserts, disc labels, and multipurpose labels.

Part No.	Product No.	Description	Price
235150EX	LK2	CD/DVD/MINI label kit	\$19.95
235176EX	LK4	CD/DVD labels glossy white	12.95
235168EX	LK3	CD/DVD labels matte white	9.95
235184EX	LK5	Jewel case inserts	9.95



#### CD, CD-ROM & DVD Cleaner

- · Removes accumulated oils, dust, and debris from CD optical lens
- Single brush wet-dry cleaner
- 6-language voice guide instructions

5 5	3	
Part No.	Description	Price
228531EX	CD laser lens cleaner	\$9.99

# **EZ/CDPrint Printer**

Introducing the EZ/CDPRINT, the first printer that delivers a low-cost way to create professionally printed CD-R's, Credit Card CD-R's, CD Jewel case liner notes and standard color paper documents.



- Compatible with all inkjet printable CD-R & DVD-Rs
- Both USB and parallel port connections
  Uses standard C60/C62 Epson inkjet cartridges
- Prints paper documents at 12ppm monochrome & 7ppm color

Printer size: 18.0"W x 8.0"D x 7.0"H

 Special PC and Mac software and templates to print CD, liner notes and more Requires: Windows® 95/98/2000/ME/XP, Mac OS 8.1 or higher operating systems Includes: Printer, PC and Mac printer and template software, three printable disks



220716FX

Part No.	Description	Price
220708EX	CD printer (software, cable, ink cartridges and CD-R's)	\$279.95
220716EX	100 pk. printable 40x 700MB 80 min. CD-R	42.95

# CD Accessories





Part No.	Description	1	5	10
172179EX	Single jewel case	\$.40	\$.36	\$.31
208514EX	Paper envelope 25 pk	2.49	2.25	1.99

# A point-and-click security solution!

With computer security on everyone's mind, this new USB mouse is an essential addition to your desktop. It eliminates the pitfalls of passwords and logon IDs by actually reading your fingerprint, providing instant access to the computer's authorized user, and locking everyone else out. Perfect for protecting machines that contain sensitive information (and what computer doesn't?), this top-of-the-line, programmable optical mouse truly puts high security at your fingertips!

System requirements: Windows® 95/95/NT/2000/ME/XP, available USB port

Part No.	Description	Price
262625EX	EyeD USB OptiMouse with biometric recognition software	\$129.95

#### Plug-and-play biometric watchdog secures your data.

The EyeD Hamster fingerprint recognition tool for computers provides you with both security and convenience. Place the compact, self-powered Hamster next to your keyboard, and put the finger on would-be hackers with biometric security. The device and its SecuDesktop™ 2000 software suite reads your fingerprint in under a second, and allows PC access only to authorized users. Easy USB, PS/2 or parallel port with passthrough connection. Includes installation manual and CD-ROM drivers.

System requirements: Windows® 95/98/NT4.0/2000/ME/XP, available USB port

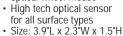
Part No.	Description	Price
262713EX	EyeD hamster fingerprint scanner	\$119.95

We're always looking for suggestions and feedback about the products we offer. Help us better supply more of the products you need. Feel free to drop us a line at: AtHome@Jameco.com



#### OTRONIX. USB or PS/2 3-Button Optical Wheel Mouse

· Ergonomic style 3-button optical wheel mouse





#### System requirements:

IBM PC or compatible, Windows® 98/2000/ME/XP, available PS/2 or USB port

Part No.	Description	Price
199591EX	Lynx-LVII	\$29.95

# OTRONIX.

#### Trackball with Menu Software

· Detachable wrist strap Variable res. (20-6400 dpi)

Ergonomic design

 One million cycle life tactile switches • 3.5" disk

One-year warranty

Size: 5.5"L x 4.6"W x 2.0"H

System requirements: IBM PC/XT and higher compatible systems; MS DOS 3.3 or later, Windows® 95

Part No.	Description	Price
128995EX	LIBRA 90 PM NET	\$29.95

#### Space-Saver Keyboards

Full featured AT & PS/2 mini keyboards save valuable desktop space.



Mini Keyboards save up to 30% desk space!

#### Standard Keyboard

- · Adjustable tilt mechanism Tactile key stroke
- · LED indicators for Num,
- Caps, and Scroll lock

#### 199718EX: 83-key keyboard

- For PS/2 systems
- Auto repeat N-key rollover
- Size: 12.8"L x 6.2"W x 1.0"H · Weight: 1.9 lbs.

#### 114868EX: 84-key keyboard

- For AT systems, designed for Windows® 95
- Size: 12.8"L x 6.6"W x 1.0"H Weight: 2.4 lbs.

#### 211756EX: 88/89-key keyboard w/ touch pad

- For AT systems, designed for Windows<sup>®</sup>
- · Built-in touch pad and embedded keyboard
- Soft touch membrane contact
- Size: 11.4"L x 8.5"W x 1.2"H Weight: 2.3 lbs.

Part No.	Description	Price
199718EX	83-key PS/2	\$45.95
114868EX	84-key AT	49.95
211756EX	88/89-key AT	59.95

# Organize and maximize your workstation.

Tired of trying to work without enough space? Free up your desk space with this convenient clip-on mouse platform. No drilling required – clamps on securely to your desk or workstation without damaging the desk. This unit also stores completely below your desk so you don't have to see it when not in use. Includes a cord clip to keep mouse cords tangle free and in position.

Part No.	Description	Price
249105EX	Clip-on mouse pad	\$9.95



#### Your new favorite mouse is Mini!

For no-nonsense reliability in a compact form factor, you can't beat this plug-and-play performer. Optical technology lets you work on any surface, even without a mousepad. And this mouse is the perfect size to slip into your laptop case. While it may be small, the features are full-size: PS/2 or USB connectivity, finger-tip scroll wheel, and 800 dpi resolution deliver top-of-the-line functionality, all at an unbeatable Jameco price.

Part No.	Description	Price
265471EX	Mini mouse	\$17.89

COMMITTEE STATE



#### **QTRONIX.** Win 95 104-Key Keyboard with Jumbo Trackball

- PC/AT and PS/2 compatible w/ DOS 3.0 or higher
- "N-Key" roll-
- over for quick typists
- Tactile click sound and feel · Weight: 3.7 lbs. Size: 19.0"L x 6.8"W x 1.4"H
   One-year warranty

Includes: Software and AT cable adapter

Part No.	Description	Price
128717EX	Scorpius 35PM/NET	\$99.95

# 104-Key USB Keyboard



- For PC's with USB ports
   Windows® compatible
- Windows® start menu key
   Soft-touch key
- · 12-function keys with separate cursor and numeric keypad
- Gateway<sub>®</sub> Extra USB ports on side and rear
- · LED indicator for Num, Caps, Scroll Locks
- · Multifunction keys for email, multimedia and sound
- Size: 18.6"L x 7.8"W x 1.4"H · Weight: 3.8 lbs.

Part No.	Description	Prid
263521EX	USB keyboard	\$16.2

#### QTRONIX. 22-Key Serial Keypad

- · Tactile click-sound and touch · Auto repeat function
- 9600 bps, data bits: 8, stop bits: 1, start bit: none, no parity • 2-key rollover
- Serial DB9 connector
- One-year warranty Color: black
- Size: 6.2"L x 4.2"W x 1.3"H

System requirements: IBM PC/XT or higher compatibles; and MS DOS 3.X Includes: 3.5" driver diskette and manual

Part No.	Description	Weight	Price
265375EX	Scorpius 22RB	0.8 lbs	\$39.95

# Multimedia USB CF Card Reader

Here's an easy way to upload photos, files, movies, and data from your multimedia flash memory card to your computer! This flash memory card sits right



on top of your desk and acts like a removable disk drive, treating your memory card like a diskette. Drag and drop files from the card to your computer and vice versa.

- 1 expansion slot for compact flash card
- USB-A male connector
- · Compatible with PC's and MAC



NEW

Product No. 278125EX SDDR-1201 .....

# Wireless keyboard and mouse set you free and end desktop cable clutter.



Tired of tugging at the cables that tie your keyboard and mouse to your PC? Replace them with this completely wireless multimedia keyboard and mouse. Just plug the receiver into two PS/2 ports on your PC, install the software, and you're jamming. The system uses radio frequency (RF) communications technology, not infrared like many other wireless keyboards. So you don't have to worry about staying within line-of-sight of the receiver. In fact, you can use the keyboard and mouse up to 3' away. Keyboard includes 16 Internet and media hot keys. Opto-mechnical mouse features 3 buttons and scroll wheel, 400 dpi hardware high resolution. Includess 2AA batteries for keyboard; 2AAA batteries for mouse, user's guide, multimedia drivers.

Part No. Description Wireless RF keyboard and mouse .....



# COLOR CODE LEGEND... NEW SALE REFURBISHED CLOSEOUT

#### **PCI Video Capture Card**

This new high speed PCI video capture card provides superb digital images from multiple cameras and remote surveillance. Highresolution digital color image storage and



management with real-time video observation capability. No need to watch endless hours of recordings of nothing, you can choose to be alerted by email when the built-in motion detector is activated.

- · Input signal: 4 video, 1 audio synchronized mono Enhanced MPEG4 format (with sound card)
- Display & record: 60 frames per second (per card)
- · Record Mode: event/continuous/scheduled
- Display: 1/4/9/16/full screen
   Time/date stamp
- · Color adjust: adjustable light, contrast, hue, saturation Resolution: 160 x 120 up to 640 x 240
- Multitask: monitoring, recording, PTZ control, remote hack-up
   Size: 4.9"L x 3.6"H remote, back-up
- Storage: HDD, VDRAM, CD-RW, DAT, ZIP
- Support internet monitoring: client software, Explorer, or Windows® Media Player

Includes: CD-ROM software and drivers

Minimum system requirements: Pentium® III/ 800MHz, 128 RAM, 32M AGP video card or above

Part No. P	roduct No.	Price
<b>262019EX</b> E	DV-XVIEW4	\$237.55

#### PCI 32-Bit Sound Card

Have your game and music content come alive using this analog four-speaker output even if your sound source doesn't support 3D sound! Utilizes the same EMU10K1 audio processor as the Sound



Blaster Live, the most powerful audio chip available today. This translates into all-around fantastic sounding audio experience with higher frame rates for your games and more bandwidth for 3D audio. Microsoft Windows® NT 4.0 and Windows® 95/98 operating system compatible.

Part No.	Description	Price
249404EX	PCI 32-bit sound card	\$36.95

# **Hands-Free Condenser Microphone**

- · Cord length: 8'
- · Connector: 3.5mm male stereo plug
  • Size: 1.9"L x 1.2"W x 0.3"H
- One-year warranty

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Part No.	Description	1	10
135247EX	Microphone	\$4.49	\$3.99

# It's a Summer Extravaganza!

We have lowered prices, offering you savings of 15-30%. Be sure to thumb through our catalog and look for these specially marked prices. Supplies are limited so act fast!



#### Color CCD Camera

#### Sony Chipset

- 1/4" Sony super HAD CCD sensor NTSC system with 510(H) x 492(V)
- · Furnished mini lens: 3.6mm
- · Signal to noise ratio: >48dB
- · Supports these functions: auto electronic shutter (AES), auto iris control (AIC), auto gain control (AGC), auto white balance (AWB), back light compensation (BLC) & flicker less (FL) • 330 TV lines
- Video drive iris control; high/low switchable auto gain control; on/off backlight compensation
- · Internal, negative synchronous system

Requires: 12VDC @ 120mA power supply (recommend P/N 100095EX, pg 90)

Includes: Power/signal cable & mounting hardware

Part No.	Description	Video Output	Minimum Illumination	1	10
213436EX	Enclosed color camera	1Vp-p; 75Ω	0.5 lux @ f2.0	\$179.95	\$161.95

# Log on today! www.Jameco.com

#### 5.6" Color TFT Monitor

#### NTSC Format

- · TFT color LCD display
- 224 x 640 pixel display resolution
- Built-in 1 watt speaker
- · Brightness, color and volume adjustments
- Video input: 1.0Vp-p; 75Ω
- Audio input: 2Vp-p; 2kΩ
   Size: 6.1"W x 4.8"H x 1.2"D
   Weight: 2.6 lbs.

Includes: RCA cable, mounting stand with hardware and 12VDC @ 500mA power supply

Part No.	Description 1	10
201702EX	5.6" TFT color monitor \$279.95	\$259.95

#### 

- · 0.28mm dot pitch
- Res.: 1280 x 1024 @ 60Hz
- · Digital panel control
- · Input voltage: 100-240VAC, 50/60Hz (auto switching)
- · Power, contrast, brightness, horizontal and
- vertical size position, recall and trapezoid front control



- HDDB15 male connector
   UL/CSA/TUV approved Size: 14.5"W x 16"D x 14.6"H • Weight: 45 lbs.
- Requirements: IBM PC/XT or higher compatibles

Includes: Power cable, tilt and swivel base

Part No.	Description	10
153306EX	13.5" monitor viewable † <b>\$99.95</b>	\$89.95





Internal illumination lets you work in a darkened room.

# Faster, easier video editing at a fantastic price!

Create better videos faster, and have more fun doing it. The ProVideo Editing Controller system combines the most frequently used



Jog Dial

multimedia controls into a single customizable console that makes your favorite applications work together as one. Assign complicated multi-key sequences to any of the 15 keys, joystick, fader bar or jog wheel, and execute them with one touch. Switch between applications automatically as you work. Comes with VideoWave 4.0 editing software which includes templates for all popular applications, and you can save your own templates for virtually any application. Requires Windows® 98+ or Mac 8.6+. Includes USB cable. (Mac software not included. Download at www.Jameco.com)

Part No.	No. Description	
220329FX	Pro-video editina controller	\$29.95



#### **Product Specifications:**

- Frequency response 110Hz 18kHz +/- 3dB
- Input impedance:  $10K\Omega$
- · Voltage: 110V
- Size speaker: 5.4"H x 2.8"W x 4.6"D
- Size subwoofer : 6.0"H x 4.3"W x 5.4"D
- · Weight: 3.14 lbs.

# Super-size sound for your PC, at drive-through prices!

You'll enjoy crisp highs and booming bass when you add this economical but feature-packed set of magnetically-shielded speakers to your computer system. The satellite speakers deliver big stereo sound in a small package that will complement any desktop. And the compact subwoofer discreetly belts out the bass to make your music and gaming experiences the best they can be. User-friendly features include trouble-free A/C power, convenient on/off and volume controls, and a small, classy footprint for flexible installation.

Part No. Description Was \$14.95 Price 233390EX Powered subwoofer system ..... \$10.49

Н1

196040EX



#### **PCMCIA RS-232 Interface**

PC card/PCMCIA-based serial port card.

- · Low cost single port RS-232 interface
- Uses 16550 UART
   5, 6, 7 or 8 data bits
- Odd, even or no parity
- 115k baud data rates · Configured as COM1,
- COM2, COM3 or COM4





169594EX

# PCM-COM232 card

#### PCI High-Speed Multi-Port Serial I/O Dual 16C650 Serial Ports (2) DB9M Connectors

32-byte FIFO

- Plug & Play compatibleStandard RS-232 interface
- Transfer rate: un to 921kb/sec.
- · Supports IRQ sharing

Includes: Manual and drivers on CD-ROM & floppy

System requirements:

486 and higher compatible, Windows® 95/98/NT/2000

Part No.	Description	Price
172005EX	2-port PCI serial	\$48.45

# PCI Ultra High-Speed I/O

#### Serial 16C550 and Parallel Port

- · 32-bit PCI bus with PCI bus 2.1 specification compliant
- Serial ports are software configurable w/ throughputs up to 921.6kbps
- · BPP/SPP mode compliant
- Windows® 95/98/NT 4.0 drivers supported

169594EX: 2 serial DB9M on card and 1 parallel DB25F panel bracket assembly

Part No.	Description Price	
146667EX	Dual serial (16C550)\$38.95	
169594EX	2 serial (16C550) and 1 parallel 59.95	

# **ATEN**

#### RS-232 to RS-485/422 **Bidirectional Converters**

117701EX

- · Cable length: 4000' max.
- Data rate: 1MB/second
- · 4-wire full duplex or 2-wire half duplex
- · Controlled by RTS signal
- Point-to-point and multidrop operations
- RS-485: terminal block & RJ11 connections
- RS-232: DB25 female connector
   Input: 110VAC
- 197931EX: port powered (Power adapter not included)
- · Data rate: 100kbps

122956EX: features RS-485SI optical isolation: 2000V

Includes: 9VDC @ 300mA power adapter

Part No.	Description	Price
117701EX	RS-232-485/422	\$57.95
197931EX	RS-232-485/422	69.95
122956EX	RS-232-485/422 OPT ISO	119.99

#### Short Haul Modem

- Up to 38,400 baud
- Will communicate over 6.3 miles of cable
- No external power required
- DCE/DTE selectable

COLOR CODE LEGEND

- · Xon-Xoff or hardware handshaking
- Part No. Description

#### RS-232 interface (DB25 female) Price 116581EX Short haul modem

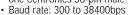
#### **Bidirectional Non-Buffered Serial**to-Parallel Converter

· Bidirectional conversion of parallel and serial signals

Serial interface: hardware handshake RTS/CTS, software handshake XON/XOFF; DCE/DTE selectable; parity: odd,

even, or no parity; data bits: 7, 8 · Connectors: one DB25 female and

one Centronics 36-pin male



• Stop bits: 1 or 2

 Size: 4.0"L x 2.5"W x 1.0"H One-year warranty Includes: AC adapter (9VAC @ 200mA) and manual

Part No.	Description	Weight	Price
116935EX	Bidirectional converter	0.8 lbs	\$49.95

# **Power Strip Outlet Saver**



Four Outlets Blocked



199777EX

(ŪL)

**Every Outlet is Usable** 

With our high quality power strip outlet saver, you can use all the outlets on your surge suppressors, UPS, and outlet strips. Just plug a bulky power adapter into this cable and free up your other outlets.

 Cord type: SVT Cord length: 1'

Part No.	Description	1	10
199777EX	AC Power cord (black)	\$1.69	\$1.55
208338EX	AC Power cord (beige)	1.69	1.45

#### Power Strip Saver Double Outlet

Get full use of your power strips. Plug those bulky adapters into these cables and plug the cables into the power strip. Need the extra adapter to be plugged into the power strip? Use the "Y" power strip saver to add an extra adapter.



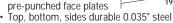
Part No. Description 1	1 10

#### 19" Rack Mount Enclosures

Perfect for equipment setup in home, studio or laboratory.

· Ventilation holes on all sides

Front and back panels are steel w/ aluminum, pre-punched face plates



• Front panel: 0.12" Thick • Black front panel

All enclosures have handles except P/N 132812EX

**Includes:** Mounting screws

_						
Part	Dimensions (In.)		Weight	Pricing		
Number	H1	H2	D	(lbs.)	1	10
132812EX	1.73	1.25	9.75	6.2	\$39.95	\$35.99
132821EX	3.46	3.0	9.75	7.9	47.95	43.49
132839EX	3.46	2.88	11.75	9.1	53.95	48.59
132847EX	5.22	4.75	11.75	10.6	63.95	55.99
132855EX	5.22	4.75	13.50	11.8	73.95	66.95

#### Removable HD Rack and Insert

- For quick drive swapping
- · Removable storage for 3.5" IDE drive
- Power LEDs
- · Keylock for security 196040EX:
- Size: 5.8"W x 8.5"D x 1.5"H
- · Weight: 1.2 lbs.

196031EX: • Size: 4.1"W x 7.5"D x 1.6"H • Wt: 0.8 lbs. Includes: Inner cable with IDE connector

Part No. Description 10 196040FX IDE rack w/ insert .... \$27.95 \$20.95 196031FX Insert for 196040EX ..... 19.95 16.99

# External IDE HDD Enclosure with Parallel Interface

External HDD enclosure for IDE hard drives with a parallel port interface for connecting to a PC or laptop. No drivers needed. Windows® 98 and above will automatically

- detect hard disk drive. · Parallel port interface
- · Front panel green LED indicator
- · On/off power switch
- Built-in fan and 110V power supply

Part No.	Description	1	5
249316EX	HDD external enclosure	\$19.95	\$15.95

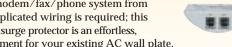
# Keep dangerous spikes and surges out of site, and out of mind!



Protect your valuable equipment as you eliminate clutter with this easyto-install surge protector. This unit is a direct replacement for your existing AC wall plate; no wiring is required. Your cable/satellite/antenna connection and two outlets are fully protected against damage from harmful electrical spikes and surges. Two safe-operation lights ensure correct installation and active protection.

Part No.	Description	Price
235002EX	RCA universal surge protector	\$9.95

Guard against power spikes and surges as you protect your modem/fax/phone system from harm. No complicated wiring is required; this easy-to-install surge protector is an effortless, plug-in replacement for your existing AC wall plate.











RCA universal surge protector for phone/fax

# **Modding**

"Modding" is turning your PC into an electronic work of art. Jameco now has the lighting, windows, LED fans, lighted USB and rounded cables for a modder to truly impress. Get started now and turn your PC into the king of LAN parties or just the coolest PC on the block!

# Stock up on these kits, then light up your next LAN party!

Make your PC the envy of the neighborhood with coolrunning, brilliant cold-cathode light! Available in superbright green, red, and blue, these kits add class and status to your tower with ease. Each kit plugs directly into an open power supply connector, and includes



dual outputs for an extra bulb. A PCI bracket switch provides convenient on/off control. Choose your colors, and get the party started!

Part No.	Description	Price
263257EX	Cold cathode light kit-blue	\$19.95
263265EX	Cold cathode light kit-red	19.95
263273EX	Cold cathode light kit-green	19.95
263290EX	Light bulb for second output-blue	10.95
263302EX	Light bulb for second output-red	10.95
263281EX	Light bulb for second output-green	10.95

# Four-and-a-half feet of flexible fluorescent fun!



Imagine the possibilities! You can wrap this safe, cool "neon" wire around anything you want to, transforming ordinary objects with high-tech, light-up special effects. Bikes, scooters, musical instruments, models, science-fair displays, presentation boards, anything you want to supercharge with visual pizzazz can now take on a brilliant glow. Available in green, blue, red and yellow, and portablepowered by 2 AAs. You'll want all four colors for your creations!

Part No.	Description	Price
263484EX	Electroluminescence wire-blue	. \$21.95
263505EX	Electroluminescence wire-green	21.95
263492EX	Electroluminescence wire-red	21.95

# Maintain your PC's cool, with style!



Outfit your desktop PC with this 4-channel fan controller, and you'll be in full control of your

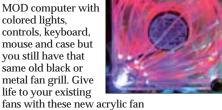
computer's cooling power and noise level. Bright multi-color LED ring-lights surround each of the front-panel knobs, adding an amazing flair to your prize machine. Installation is easy: the aluminum controller features a standard "U" type housing, high per-fan capacity (15 to 18 watts!), 3-pin to 4-pin / 4-pin to 3-pin adaptors, and plug-in ease of installation (no need to cut wires). Slip one into an empty 5.25" external drive bay, and achieve a whole new level of cool!.

Part No.	Description	Price
285579EX	4-channel fan controller	. \$19.95

# **Color coordinate your MOD** computer with these color

fan grills!

You have a new MOD computer with colored lights, controls, keyboard, mouse and case but you still have that same old black or metal fan grill. Give life to your existing



grill with color LED's. The LED's on the multicolored fan grill changes to 7 different colors. Choose from four different colors. Now you can have a complete MOD computer that will be the envy of all. Fits fans with 80mm mounts.

Part No.	Description	MENA	Price
285552EX	Green LED fan grill	IVEVV	\$3.45
285544EX	Red LED fan grill		. 3.45
285561EX	Blue LED fan grill		. 3.45
285536EX	7 color LED fan grill .		. 3.95

#### Show off your mods in acrylic style! Easy as 1-2-3.

Why replace your case? With these easy, do-it-yourself kits, you can create a classy clear acrylic window in your trusty PC in the trendy shape of your choice. In mere minutes you can install a square, rectangular or L-shaped portal to





Square also

available!

Just choose your style!

Part No.	Description	Price
263054EX	Computer window kit L-shape	\$24.95
263134EX	Computer window kit rectangle-shape	11.49
263118EX	Computer window kit square-shape	15.49
18809EX	Nibbling tool to cut case	7.95

# Put some flash in your fan!



Everyone will go hog-wild with our tri-color LED fan!

Also available in red, blue & green!

No super-hot computer mod is complete without these high-efficiency, ball bearing quiet and colorful LED case fans. Choose from 4 LED colors: ruby red, bold blue, groovy green, or go hog-wild with a tri-color fan. Installation is screwdriver-easy; just remove your old, boring fans and pop these colorful attention grabbers into place. These fans are the perfect addition for your modding creation.

Part No.	Description	Price
263020EX	LED case fan tri-color with grill	. \$9.95
263011EX	LED case fan blue with grill	9.95
262991EX	LED case fan green with grill	9.95
263003EX	LED case fan red with grill	9.95

# **Cold-Cathode Lighting**

Add flourescent color to your projects, computer case, car and other displays with these economical lights. Now you can easily and affordably mount these 4" light tubes to add cool cold-cathode effects and give your display a richer, trick look and feel. Optional power supply below converts 12VDC input into 180-800V output needed by lights.

Part No.	Description	Price
239581EX	Black light	\$9.95
239572EX	Blue light	9.95
239599EX	Green light	9.95
239601EX	Pink light	9.95
239610EX	White light	9.95
239628EX	Yellow light	9.95
239636EX	Power supply for above	9.95

Tell us about the products you would like us to offer. Send all request to: AtHome@Jameco.com



# Work or play at your PC under any lighting conditions!

Your friends will glow with envy when they see this unique and trendy keyboard. Lit with a cool blue luminescence, all keys on this PS/2 peripheral are instantly identifiable, even in total darkness. Why break the mood of your favorite game with harsh overhead lighting when you can keystroke with perfect, futuristic, illuminated accuracy?

Size: 15.3"L x 5.9"W x 1.3"H

· Weight: 1.7 lbs.

Part No.	Description	Price
235563EX	Illuminated PS2 keyboard	\$79.95



# Round neon cables light the way to PC style and performance!

Flat cables are out, and cool light-up round cables are in!

Now you can reduce internal cable clutter and heat build-up with these outstanding replacements. The EIDE cable supports two devices and is 80-wire/40-pin equipped, so it's ready for fast Ultra66/100/133 applications. And both add a radical glow to your PC's interior!

Part No.	Description	Price
263169EX	18" light floppy cable\$	12.95
263151EX	24" light ATA133 EIDE cable	23.95

# **Transform USB connections** from beige to beautiful!

Boring cables are a thing of the past with these new 6 feet, colorful USB beauties. Choose your colors (red, white, blue, orange and green) and cable types and replace all your old connections with new, light-enabled technology. USB 2.0-ready



and protected by a lifetime warranty, these cables are ready for the future. Color-code your connections today, and get your PC out of the dark ages!

Part No.	Description	Price
262588EX	USB 2 cable orange	\$5.95
262431EX	USB 2 cable white	5.95
262596EX	USB 2 cable white extension	5.95
262457EX	USB 2 cable green	5.95
262609EX	USB 2 cable multi-color	8.95
262570EX	USB 2 cable blue	5.95
262617EX	USB 2 cable blue extension	5.95
262406EX	USB 2 cable red	5.95
262641EX	USB 2 cable red extension	5.95

# Turn your mild-mannered PC into "SuperMod"!

You'll be the life of the LAN party with this seethrough sensation! Why settle for a small sidewindow, when you can show off every square inch of your PC's interior? Kit assembly is easy (and fun!), and the result is an eye-catching desktop masterpiece in clear acrylic. There's plenty of space for your gear: Five exposed 5.25" drive bays, seven 3.5" drive bays (two exposed), and five 80mm fan positions. Add your power supply, ATX motherboard, drives, custom lighting, cabling and fans, and you'll be the proud owner of the most unique and classy PC ever!

Part No.	Description	Price
285448EX	Clear ATX computer case	\$84.95

#### **USB-A to Joystick (DB15) Adapter** · Fully compatible with any 15-pin game port PC game controller Mode switch selector for maximum compatibility and flexibility

USB Plug & Play Input connector: USB-A male

 Output connector: DB15-pin female connector Size: 3.2"L x 2.3"W x 1.3"H

System requirements: 586 or higher compatible; available USB-A port or Hub; Windows® 98 or higher Includes: Manual and 3.5" drivers

Part No.	Description		Price
189510EX	USB to game port adapter	Was \$35.95	\$21.55

## Removable HD Rack and Insert

- For guick drive swapping
- Removable storage for 3.5" IDE drive
- Power LEDs
- Keylock for security 196040EX:
- Size: 5.8"W x 8.5"D x 1.5"H
- · Weight: 1.2 lbs.

196031EX: • Size: 4.1"W x 7.5"D x 1.6"H • Wt: 0.8 lbs. Includes: Inner cable with IDE connector

Part No.	Description 1	10
196040EX	IDE rack w/ insert \$27.95	\$20.95
196031FX	Insert for 196040FX 19.95	16.99

# Refer a Friend

Are you tired of loaning your latest copy of the Jameco catalog to a friend or business associate? If they can't take a hint just visit our website at:

www.Jameco.com/CatReferral. We'd be happy to send them a catalog too!





# **USB Front Panel Access Port**

Tired of crawling under your desk or standing on your head to plug something into your USB port? With these 3.5" front panel USB access ports, You can enjoy the easy upfront access to all of your USB ports without moving the PC.



Tower not included

· 4 USB; Line-In; Line-Out

Part No.	Description	Price
213532EX	Front panel port	\$18.95

# **External IDE HDD Enclosure** with Parallel Interface

External HDD enclosure for IDE hard drives with a parallel port interface for connecting to a PC or laptop. No drivers needed. Windows® 98 and above will automatically detect hard disk drive.

- · Parallel port interface
- Front panel green LED indicator
- On/off power switch
- · Built-in fan and 110V power supply

Part No. Description 249316EX HDD external enclosure ....... \$19.95 \$15.95

See pages 66-67 for the latest and fastest Intel® motherboards and processors, Seagate hard drives, and Kingston memory.











USB-A (F)

# USB 2.0 Cables USB-A (M) to USB-A (M) to USB-A (M) to

USB-A (M) USB-B (M)

• Higher transfer rate up to 480Mbps

#### USB-A Male to USB-A Male

Part No.	Description	1	10	25
229681EX	6' cable beige	\$6.49 \$1.65	\$1.49	\$1.39
222033EX	6' cable black	\$6.49 1.65	1.49	1.39
229551EX	6' cable clear	\$6.49 1.65	1.49	1.39
229690EX	10' cable beige	\$7.99 1.89	1.75	1.65
222041EX	10' cable black	\$7.99 1.89	1.75	1.65
229569EX	10' cable clear	\$7.99 1.89	1.75	1.65

#### USB-A Male to USB-B Male

Part No.	Description	1	10	25
229711EX	3' cable beige	\$5.99 \$1.55	\$1.39	\$1.29
222607EX	3' cable black	\$5.99 1.55	1.39	1.29
229585EX	3' cable clear	\$5.99 1.55	1.39	1.29
229729EX	6' cable beige	cs.49 1.65	1.49	1.39
222009EX	6' cable black	\$6.49 1.65	1.49	1.39
229593EX	6' cable clear	\$6.49 1.65	1.49	1.39

#### USB-A Male to USB-A Female

Part No.	Description	1	10	25
229770EX	6' cable beige	\$7.99 \$1.65	\$1.49	\$1.39
222068EX	6' cable black	\$7.99 1.65	1.49	1.39
229622EX	6' cable clear	\$7.99 1.65	1.49	1.39
229788EX	10' cable beige	\$9.99 1.89	1.75	1.65
222076EX	10' cable black		1.75	1.65
229631EX	10' cable clear	\$9.99 1.89	1.75	1.65

# USB to Serial Adapter with Prolific Chipset

This USB serial adapter provides an external Plug-and-Play RS-232 port for computers, notebooks, and handheld computing devices. Provides high-quality serial connections at transfer rates of more than 500kbps for cell phones, PDAs, digital cameras, modems and ISDN terminal adapters.

- Supports RS-232 serial interface, automatic handshake mode, remote wake-up and power management
- Provides a 96-byte buffer for each upstream and downstream data transfer
- Has a 7" cable with DB25 male connector and a 14" cable with USB-A connector

System requirements: Windows®98/2000, USB host controlled installed in the system

Part No.	Description	1	5
213006EX	USB-A to serial converter	\$29.95	\$27.95

# **External 7-Port USB Hub**



- 7 USB-A female output ports
- · USB-B female root port
- Allows you to attach 127 USB devices to your PC
- · LED indicators for port, status, and power
- Plug & Play compatible
   Size: 7.9"L x 2.8"W x 1.1"H
   Includes: 6VDC power adapter and USB-A male to
   USB-B female cable

Part No.	Description	Wt. (lbs.)	Price
191450EX	7-Port USB hub	2.6	\$34.19

#### 2-Port USB-A PCI Card

- · Plug & Play compatible
- Uses VIA VT83C572 controller chip
- USB specification V.1.1 compatible
- USB legacy BIOS supports
- Operates in USB-aware operating system (Win® 95, 98)

Includes: Manual

Part No.	Description	1	10	25
155299EX	PCI USB Was \$24.99 \$19	.55	\$17.59	\$15.85

#### **USB-A Female Cables & Bracket**

- Supports data transfer rates of 12Mbps
- rates of 12Mbps
   Connection of two devices
- Dual USB-A female connectors 8" long

Part No.	Description	1	10
144813EX	USB-A panel mount	\$6.95	\$6.25

# **USB Gender Adapter**

USB-A to USB-BUSB-A (female) to USB-B (male



#### **USB Cables**

USB-A Male to USB-B Male

175417EX

Part No.	Description	1	10
175417EX	3' cable	\$1.29	\$1.15
169359EX	6' cable	4.95	4.49

# Network/Communication Coaxial Cables and Connectors

# **RG Type Bulk Coaxial Cable**

RG58A/U (50 $\Omega$ ): Nominal cap.: 27pF/ft.; center resist.: 10.4 $\Omega$ /kft. @ 77°F RG174/U (50 $\Omega$ ): Nominal capacitance: 30.8pF/ft.; center resist.: 97 $\Omega$ /kft. @ 77°F

Prepackaged and priced in increments of 100' or 1000'

Part	Mfr. Cross		25500	
Number	Ref. No.	Description	100 ft.	1000 ft.
116898EX	RG58A/U	For ethernet, oscilloscopes (stranded 20AWG)	\$19.00	\$150.00
112037EX	RG174/U	For ethernet, oscilloscopes (stranded 26AWG)	19.00	169.00



- Cellular phone, data communication, instrumentation and video  $50\Omega$  impedance
- Plating gold (153285EX: plating nickel) Temperature range: -65°C to 165°C
- Frequency range: 0-18GHz

Part No.	Description	1	10
157972EX	SMA 50Ω crimp type M plug connector (RG-58)	\$3.99	\$3.59
153365EX	SMA 50Ω crimp type M plug connector (RG-174)	4.39	3.95
145381EX	SMA straight F PCB mount connector, 4 legs	5.25	4.75
153285EX	SMA bulkhead solder F w/ washer, rear mount (RG-58/174)	3.49	3.15
160021EX	SMA F panel mount connector, 2 mounting holes*	3.99	3.59
160012EX	Panel mount feed thru connector F – F	4.99	4.49
188509EX	SMA PCB straight jack	3.69	3.35
188525EX	SMA PCB right angle jack	5.95	4.95
*160021EX: 5	Solder cup		

# **BNC/RCA Adapters**

Part No.	Description 1	10
114788EX	RCA female to BNC male adapter \$1.35	\$1.05
114753EX	RCA male to BNC female adapter 1.59	1.45
114770EX	BNC female to "F" conn. male adapter 1.79	1.59



#### **BNC Coax Connectors**

BNC connectors are miniature, lightweight units designed to operate up to 11GHz and typically yield low reflection up to 4GHz.

J 1	5 5	1	
Part No.	Fig.	Description 1	10
71482EX	1	BNC M w/ pin & ferrule (RG58) \$1.65	\$1.49
112109E)	<b>(</b> 1	BNC M w/ pin & ferrule (RG174) 1.59	1.45
135618E)	<b>(</b> 2	BNC M w/ pin & ferrule (RG6)89	.69
71271EX	2	BNC M w/ pin & ferrule (RG59/62)81	.66
71589EX	2	BNC F panel mount (UG-1094A) 1.49	1.35
111561E)	<b>(</b> 3	BNC F isolated bulkhead 2.29	1.99
174254E)	<b>(</b> 4	BNC M to F conn. F 1.99	1.59



#### SMA/SMB 50 $\Omega$ Coax Cables

Fig. 1: SMA male to SMA male Fig. 2: SMA male to SMA right angle male

3			3 3 .		
Part No.	Cable	Fig.	Length (ft.)	1	10
159370EX	RG58	1	2	\$4.49	\$3.99
159396EX	RG58	1	6	5.49	4.89
169800EX	RG174	1	0.5	5.59	4.99
163854EX	RG174	1	1	4.49	3.95
153381EX	RG174	1	2	4.95	4.29
153390EX	RG174	1	4	5.49	4.75
159450EX	RG174	1	4	6.79	6.15
175126EX	RG174	2	0.5	4.49	3.95
175134EX	RG174	2	1	4.95	4.25





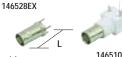
## **BNC PCB Connectors**

· 146528EX:

Ideal for applications where multiple insertions require a connector which can endure the stress of high torque

Maintains matching impedance at  $50\Omega$  &  $75\Omega$ . Ideal for LAN cards & precision video

Part No.	Description	Length (L)	1	10
146528EX	BNC straight metal	.719"	\$2.79	\$2.49
146510EX	BNC right-angle plastic insulation	1.37"	1.95	1.75
161656EX	BNC right-angle metal	.861"	2.29	1.99







## Cat 5e Crossover Cable

• 8P8C · 4-pair

• UTP

· Connect 2 PCs without a hub

 24AWG (7 x 43) stranded · Strain relief RJ45 connectors

Part No.	Description	1	10
169261EX	10' cable RJ45, gray	\$6.95	\$6.25



# **RJ45 Keystone Wall Plates**

Color: ivory
 Size: 2.8"W x 4.5"H

	. ,		
Part No.	No. of ports	1	10
195549EX	1	\$1.25	\$1.15
195557EX	2	1.25	1.15
195565EX	3	1.25	1.05
195573EX	4	1.25	1.06









Modular Jack Boxes and Wall Plate

Add phone lines and network connections with our modular jack boxes and wall plate. Screw down terminals and color coded wires for easy installation and troubleshooting.









Fig. 1 (72311EX) Fig. 3 (213031EX) Fig. 4 (213049EX) Fig. 2 (71651EX)

Part No.	Description	Fig.	Dimensions (W x H x D)	1	10
72311EX	6P6C & 8P8C double wall jack plate w/ jacks (beige)	1	2.8" x 4.5"	\$1.95	\$1.75
103464EX	6P4C adhesive jack RJ11 (beige)	2	2.0" x 2.2" x 0.9"	1.39	1.19
71984EX	6P6C adhesive jack RJ11 (beige)	2	2.0" x 2.2" x 0.9"	1.39	1.19
71651EX	8P8C adhesive jack RJ45 (beige)	2	2.0" x 2.2" x 0.9"	1.95	1.65
213031EX	8P8C adhesive jack RJ45(single, white) (CAT 5e)	3	1.5" x 2.4" x 1.1"	3.29	2.99
213049EX	8P8C adhesive jack RJ45(dual, white) (CAT 5e)	4	2.4" x 2.4" x 1.1"	4.15	3.75

# RS-232-to-RJ11/RJ45 **Modular Jack Adapters**



66181EX

66237EX

Change your RS-232 port to a RJ11 or RJ45 modular jack. This will allow you to use modular phone cable rather than RS-232 cable, thus simplifying networking applications. Comes complete with wiring and hardware.

Part No.	Mfr. Cross Ref.	Description	1	10
66181EX	G9P6	DB9 M-RJ11(6P6C)	\$2.59	\$2.35
66190EX	G9P8	DB9 M-RJ45(8P8C	2.89	2.65
114737EX	G9S4	DB9 F-RJ11(6P4C)	1.95	1.79
66211EX	G9S8	DB9 F-RJ45(8P8C)	2.99	2.69
66229EX	G25P6	DB25 M-RJ11(6P6C)	2.95	2.35
66237EX	G25P8	DB25 M-RJ45(8P8C)	2.99	2.69
204273EX	TMA-105	DB25 F-RJ11(6P4C)	1.95	1.75
66245EX	G25S6	DB25 F-RJ11(6P6C)	2.59	1.95
66253EX	G25S8	DB25 F-RJ45(8P8C)	2.89	2.59

# **Modular Cable Tester** with Remote Terminator

Easily read correct pin configuration of 10baseT, 10base2, RJ45/RJ11 modular cables, 258A, TIA568A/ 568B, token ring, etc. Test installed cables either on wall plate or patch panel from a distance.



Price

- · Check for cable continuity, miswiring, open, short, grounding and pin configurations
- Čable adapters: RJ45 M-M, 2 RJ45M-BNCM & BNC F-F · On-board connectors: 2 RJ45F (tester) and
- 1 RJ45F (remote)
- Size: 4.0"L x 2.5"W x 1.0"H (Main console)
- Size: 4.0"L x 1.3"W x 1.0"H (Remote) Wt.: 0.7 lbs. Includes: Manual and test cables

Part No. Description 145710EX Modular cable tester ...... \$84.95

More networking products

# @ www.Jameco.com

# Share printers, files, and DSL inexpensively through the phone wiring already in your home!

Multiple PC users in your house? Turn your home phone wiring into an instant network for sharing printers, files, modems, applications, DSL lines, Internet access, and for playing interactive games. This inexpensive solution lets computers up to 500 feet apart communicate over existing phone wiring. There's no drilling or cable snaking from room-to-room.



Back View

Front View

Don't waste money on separate printers, modems and Internet connections Install the AnyPoint Home Network, and let everyone share at speeds of up to 1Mbps.

And you don't lose a single phone jack or printer port. Installation is easy. The manual is excellent, and you get 90 days support free. Package includes hardware and software for networking 2 PCs: 2 adapters (Intel 21145 phone line/Ethernet LAN controller), 2 parallel cables, 2 phone cables, 1 CD-ROM. Purchase an additional package for each 1-2 PCs. Requires 486 PCs or higher, Windows® 95/98, 8 MB RAM, 18 MB hard disk space, parallel port for printer use. At least one PC must have CD-ROM drive, modem, and Internet access.

Part No. Description Price 220417FX Any Point™ home network \$29:95 \$19.95

# **BNC Coax Cables**





RG58/U 50Ω Cables

· For Ethernet networks, oscilloscopes

Mfr. Cross Part Lgth (ft.) Number Ref. No. 10 102314EX CRG58-1 1.5 ..... \$3.99 \$3.49 3 ..... 4.29 11404FX CRG58-3 3.89 102331EX CRG58-6 6 ...... 4.39 3.99 180822EX CRG58-10 10 ...... 4.49 169818EX CRG58-15 4.46 102365EX CRG58-50 50 ..... 9.49 8.54

#### RG174/U 50Ω Cables

· For Ethernet networks, oscilloscopes

Part Number	Mfr Cross Ref. No.	Lgth (ft.)	1	10
111472EX	RG174U3	3	\$3.85	\$3.49
111481EX	RG174U6	6	4.59	4.15





# COLOR CODE LEGEND... NEW SALE REFURBISHED CLOSEOUT

# What is the difference between enhanced category 5e cable rated for 350 MHz and category 6 cable rated for 200 MHz?

Category 5e cable is specified up to 350 MHz. Cables can be tested up to any frequency that is supported by the test equipment, but such measurements are meaningless without the context of applications and cabling standards.

The category 6 standard sets minimum requirements up to 200 MHz for cables, connecting hardware, patch cords, channels and permanent links, and therefore guarantees reasonable performance that can be utilized by applications.

# New Cat 6 technology improves performance effortlessly.



The difference between category 5e and category 6 is in the transmission performance, and extension of the available bandwidth from 100 MHz for category 5e to 200 MHz for category 6. This includes better insertion loss, near end crosstalk (NEXT), return loss, and equal level far end crosstalk (ELFEXT). These improvements provide a higher signal-to-noise ratio, allowing higher reliability for current applications and higher data rates for future applications. Category 6 cables are 100% backward compatible with Cat 5 and Cat 5e systems.



Although category 6 and category 5e connectors may look alike, category 6 connectors have much better transmission performance. This means that a category 6 connector couples about 1/12 of the power that a category 5e connector couples from one pair to another pair. Conversely, one can say that a category 6 connector is 12 times less "noisy" compared to a category 5e connector.

Part No.	Description	1	10	Part No.	Description	1_	10
219758EX	Cable black 3' Was \$6.29	\$2.79	\$2.69	219838EX	Cable green 25' Was \$13.49	\$9.39	\$8.92
219766EX	Cable black 7' Was \$7.99	3.99	3.87	219846EX	Cable green 50' Was \$22.49	14.29	13.58
219774EX	Cable black 14' Was \$8.99	6.59	6.37	219900EX	Cable red 3' Was \$6.29	2.79	2.69
219782EX	Cable black 25' Was \$13.49	9.39	8.92	219918EX	Cable red 7' Was \$7.99	3.99	3.87
219791EX	Cable black 50' Was \$22.49	14.29	13.58	219926EX	Cable red 14' Was \$8.99	6.59	6.37
219854EX	Cable blue 3' Was \$6.29	2.79	2.69	219934EX	Cable red 25' Was \$13.49	9.39	8.92
219862EX	Cable blue 7' Was \$7.99	3.99	3.87	219942EX	Cable red 50' Was \$22.49		13.58
219871EX	Cable blue 14' Was \$8.99	6.59	6.37	220003EX	Cable white 3' Was \$6.29	2.79	2.69
219889EX	Cable blue 25' Was \$13.49	9.39	8.92				
219897EX	Cable blue 50' Was \$22.49	14.29	13.58	220011EX	Cable white 7' Was \$7.99	3.99	3.87
219707EX	Cable gray 3' Was \$6.29	2.79	2.69	220020EX	Cable white 14' Was \$8.99	6.59	6.37
219715EX	Cable gray 7' Was \$7.99	3.99	3.87	220038EX	Cable white 25' Was \$13.49		8.92
219723EX	Cable gray 14' Was \$8.99	6.59	6.37	220046EX	Cable white 50' Was \$22.49	14.29	13.58
219731EX	Cable gray 25' Was \$13.49	9.39	8.92	219951EX	Cable yellow 3' Was \$6.29	2.79	2.69
219740EX	Cable gray 50' Was \$22.49	14.29	13.58	219969EX	Cable yellow 7' Was \$7.99	3.99	3.87
219803EX	Cable green 3' Was \$6.29	2.79	2.69	219977EX	Cable yellow 14' Was \$8.99	6.59	6.37
219811EX	Cable green 7' Was \$7.99	3.99	3.87	219985EX	Cable yellow 25' Was \$13.49	9.39	8.92
219820EX	Cable green 14' Was \$8.99	6.59	6.37	219993EX	Cable yellow 50' Was \$22.49	14.29	13.58

# Modular Telephone/Printer Sharing Cables (Gray)

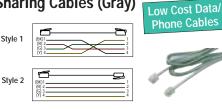
- · RJ11 6P2C/6P4C for telephone or network
- RJ11 6P6C for telephone or printer sharing
- RJ45 8P8C for telephone or modem-dial-up use

Style 1 – Reverse wiring for telephone systems

Style 2 – Straight wiring for networking/ printer sharing



	Conn.			Pricing		
Part No.	Style	Туре	Length	1	10	
189940EX	1	RJ11-6P2C	7ft.	\$.99	\$.84	
196226EX	1	RJ11-6P4C	7ft.	1.49	1.15	
115553EX	2	RJ11-6P4C	7ft.	1.25	1.09	
115545EX	1	RJ11-6P4C	25ft.	2.29	2.09	



	Conn.			Pric	ing
Part No.	Style	Туре	Length	1	10
115588EX	1	RJ11-6P6C	7ft.	\$1.55	\$1.35
115617EX	2	RJ11-6P6C	7ft.	2.19	1.99
115676EX	2	RJ45-8P8C	7ft.	1.89	1.75

# **Modular Plugs**









79290EX 79

79273EX 79281EX

02A 77201EX

P = No. of positions C = No. of contacts W/E = Western Electric type number

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	W/E	1	10	100
79290EX	6P4C (RJ11)	623	*	\$.12	\$.11
79273EX	6P6C (RJ11)	623	*	.22	.195
79281EX	8P8C (RJ45) (for				
	stranded wire)	641	.35	.28	.24
119343EX	8P8C (RJ45) unshielded (for solid wire)	_	.49	.44	.35

# **Modular Jacks**





105945FX



151765EX

ISTOSEA



113030EX

di titti

204177LX

- PC mount
   Durability: 750 mating cycles
- · Voltage rating: 150 volts AC max.
- Contact current rating: 1.5 amp max. @ 25°C

Part No.	Description	W/E	1	10
151765EX	6P4C (RJ11) side flange	AMP	\$.45	\$.43
105945EX	6P4C (RJ11) top flange	623	.62	.49
115836EX	6P6C (RJ11) side flange	_	.74	.67
204177EX	6P6C (RJ11) dual	_	1.49	1.35
124038EX	6P6C (RJ11) 6" leads	_	1.25	1.15
115844EX	8P8C (RJ45)	641	.48	.44

#### Modular Jacks

# Punchdown Keystone Type

 Removable jacks used in wall plates (clip in)

CAT 5e classification

 Punchdown type wiring connections with color coding

• Size: 0.57"W x 0.63"H x 1.23"D RJ45: 8P8C RJ11: 6P6C



213516EX

#### RJ45

Part No.	Color	1	10
195590EX	Red	\$3.75	\$3.55
195602EX	Yellow	3.75	3.55
195611EX	Green	3.75	3.19
195629EX	Black	3.75	3.55
195637EX	Ivory	3.75	3.19
212951EX	Blue	3.75	3.55
212943EX	White	3.75	3.55

#### RJ11

Part No.	Color	1	10
213524EX	Black	\$3.75	\$3.55
213516EX	White	3.75	3.55

# More @ Jameco.com



# Keyboard/Monitor-to-PC Switch Box

#### HDDB15/5-Pin DIN Female

- 2-way switch box
- For 2 PCs connected to 1 keyboard and 1 monitor – diodes maintain keyboard in powered state



- Size: 6.0"L x 4.0"W x 2.3"H
- · Weight: 1.3 lbs.

Part No.	Description	1	10
114155EX	2 computers .	\$14.95	\$13.49

# Serial Port-to-PC Switch Boxes

#### DB9 Female

· Connects 2 or 4 serial ports to a PC



2-serial port switch box

 Size: 6.0 L x 4.8 W x 2.5 H · Weight: 1.2 lbs. 183417EX:

4-serial port switch box

Size: 6.1"L x 4.0"W x 2.2"H

· Weight: 1.3 lbs.



79126EX

5		
Part No.	Description 1	10
79126EX	2-serial port switch box \$9.95	\$8.95
183417EX	4-serial port switch box 19.95	17.95

# Parallel Printer-to-PC Switch Boxes

#### DB25 Female

· Connects 2 or 4 PCs to one printer

20095EX: 2-PC switch box • Size: 6.0"L x 5.8"W x 2.3"H

· Weight: 1.3 lbs.

20124EX: 4-PC switch box

• Size: 6.0"L x 4.0"W x 2.4"H

· Weight: 1.5 lbs.



Part No.	Description 1	10
20095EX	2 PC switch box \$8.95	\$7.95
20124EX	4 PC switch box 14.95	13.49

#### **RGB Video Cables**

75Ω coaxial cable; 6' or 10'

· Pin 1 red, pin 2 green, pin 3 blue, pin 14 white/black vertical, pin 13 gray horizontal



5 BNCs to HDDB15-pin male

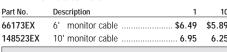
Part No.	Description	1	10
73648EX	6' cable (black) \$1	9.95	\$16.99
118068EX	10' cable (black) 3	1.95	27.15

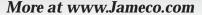
## **VGA Monitor Cables**

· Connects video card to VGA monitor

· IBM PC/XT and higher compatibles

HDDB15 male to male







# One simple tool and you have two computers at your command.

This two port switch box can access TWO computers from one keyboard, mouse, and monitor. No interface card or software to configure. Operation is as simple as pushing a button on the front panel and entering hot-key commands.

- Supports Microsoft® IntelliMouse, Logitech Net Mouse, etc.
- Supports operating systems DOS, Win 3.x, Win95/98/98SE/2000/ME, WinNT, Netware, Unix Linux
- High VGA resolution
- Keyboard and mouse pluggable at anytime
- Hot-key function allows easy computer access
- Audible sound for switching port confirmation
- Port and console connectors: female PS/2 keyboard and mouse, female HDDB15 for video
- Size: 4.3"L x 3.0"W x 1.2"H
- Recommend gender changer, P/N 119301EX, pg 80, when ordering 216063EX and 204062EX.

Part No.	Description 1	10
216063EX	2-Port K/V/M switch box \$69.95	\$62.95
204062EX	PS/2 cable 16.95	15.29

#### VGA Monitor Extension Cables





66165EX

- · Extends VGA monitor cable; HDDB15 male-to-female
- IBM PC/XT and higher compatibles

#### 134041EX:

· HDDB15 female with hex nuts and HDDB15 male with thumbscrews

66165EX/148531EX: • Thumbscrews on each end

Part No.	Description 1	10
134041EX	6' screws/hex nuts \$4.49	\$3.95
66165EX	6' thumbscrews 6.59	5.95
148531EX	10' thumbscrews 7.49	6.79

# **Computer Card Brackets**

· For securing cards into bus slots

 Fits standard PC/XT/AT cases Length: 4.75"

· See pg 41 for DB connectors

Part No.	Description	Fig	. 1	10
11754EX	Blank back panel	1	\$1.79	\$1.59
101717EX	For DB9 connector	2	1.79	1.59
101733EX	For DB25 connector	3	1.79	1.59
101741EX	For DC37 connector	4	1.79	1.59
101830EX	For DB9/DB25 conn.	. 5	1.79	1.59

#### **CD-ROM Audio Cables**

2 x 28

#### 127546EX:

- Compatible w/ most CD-ROMs
- · Connection from soundblaster to Sony/MPC2







127546EX

- · 3 connectors on each end of wire:
- 4-position (.100") housing connector; 4-position (.100") Molex-type keyed connector; 3-position (.100") Molex-type keyed connector
- Connection from SoundBlaster to Universal
- · Use with Creative Labs, Sony or generic sound cards

Part No.	Length	1	10
127546EX	25"	\$2.95	\$2.65
168612EX	18"	4.95	4.45

# **ATX Power Supply** 15" Extension Cable



- · For use with ATX power supplies
- 20-pin ATX male and female connectors
- · Color coded to ATX power supply code
- 15"L x 18 AWG (wires)

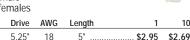
Part No.	Mfr. Cross Ref. No.	1	10
170237EX	ATX-400-RV	. \$6.49	\$5.85

# 5.25" Disk Drive Power Splitter

- · IBM PC/XT and higher compatibles
  • Splits 4-line
- Molex male into 2 females

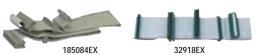
Part No.

28353EX



Over 99% of our products are in stock! Place your order by 6PM EST for same business day shipping.

# **Disk Drive Cables**







Part No.	Description	Cable Length	1	10
185084EX	34-pin header socket ribbon cable for floppy drive	25"	\$1.19	\$.99
32918EX	34-pin header socket ribbon cable for floppy to card	23"	3.49	2.99
72805EX	Two 40-pin header socket ribbon cable for IDE drive	18"	3.69	3.14
175492EX	40-pin header socket ribbon cable for ultra DMA66/100	17"	6.95	6.25





#### **DB9 Extension Cables**



- · All lines connected straight through 132345EX/196365EX:
- · DB9 female to DB9 female cable with thumbscrews 25700EX/148515EX/199638EX:
- · DB9 male to DB9 female cable with thumbscrews 181665EX: • DB9 male to DB9 male cable

Part No.	Des	cription	1	10
132345EX	6'	F-F\$4.9	5	\$4.49
199638EX	6'	M-F (black) 4.4	9	3.95
25700EX	6'	M-F4.9	5	4.49
196365EX	10'	F-F 6.9	5	6.25
148515EX	10'	M-F	9	6.79
181665EX	10'	M-M6.9	5	6.25

#### **DB25 Extension Cables**

- · All lines connected straight through
- Use to lengthen your standard serial cable or for switch box applications
- Thumbscrews to secure connectors



P/Ns 174001EX/175290EX: black\*



67256EX

Part No.	Desc.	Weight (lbs.)	1	10
281551EX	3' M-M	0.4 \$4	1.45	\$4.25
174001EX	3' M-M*	0.6	1.79	4.35
65787EX	6' M-M	0.5	5.49	5.89
39538EX	10' M-M	0.76	5.95	6.29
179979EX	15' M-M	1.2	5.95	6.29
67070EX	25' M-M	1.4 <b>1</b> 0	).95	9.95
164291EX	3' M-F	0.4	1.29	3.89
175290EX	3' M-F*	0.4	2.95	2.69
163133EX	5' M-F	0.65	5.29	4.75
67256EX	6' M-F	0.6	5.45	5.79
39511EX	10' M-F	0.76	5.95	6.29
101995EX	25' M-F	1.4 <b>1</b> 1	1.95	10.79

#### **IEEE 488 Cables**

A variety of cable lengths are offered to ensure that the IEEE system requirements are met (20 meters maximum



73154FX length with a maximum of 15 devices). These cables are standard IEEE 488 cables with stackable 24-pin GPIB connectors on both ends.

Part No.	Description	Wt. (lbs.)	1	10
73154EX	1 meter	0.8	\$36.49	\$32.79
115781EX	2 meter	1.2	37.95	34.19
115801EX	4 meter	2.0	38.95	36.19

# Serial Null Modem Cables





- Molded type connectors
- Color: gray · Weight: 0.4 lbs. Lenath: 10'

180697EX/181403EX Pin outs:

1 & 6-4, 2-3, 3-2, 4-6 & 1, 5-5, 7-8, 8-7 180582EX Pin outs:

2-2; 3-3; 4-5 & 6; 5-7; 6 & 8-20; 7-8; (Serial Printer Null Modem)

Part No.	Description 1	10
181403EX	6' DB9 F to DB9 F\$5.69	\$5.09
180697EX	DB9 F to DB9 F	6.09
180582EX	DB25 M to DB9 F 6.69	6.05

#### **DA15 Extension Cables**

- · Molded connectors
- Straight through
- Thumbscrews
- · Color: gray (237032EX: black)



Part No.	Description	Length	1	10
181286EX	DA15 M-M	6'	\$5.49	\$4.95
181358EX	DA15 M-F	6'	5.49	4.95
237032EX	DA15 M-F	8'	6.99	5.95

# AT-to-PS/2 and PS/2-to-AT **Keyboard Adapter Cables**

28003FX

- Color: beige 28003EX:
- · Connects AT-type keyboards to PS/2
- 5-pin female DIN to 6-pin male mini DIN 85500EX:
- · Connects PS/2 keyboard to AT
- 6-pin female mini DIN to 5-pin male DIN connectors

28003EX 7.3" 0.6	Part No.
95500FY 11 3" 0.8 5.30	28003EX
03300LA 11.3 0.0 3.37	85500EX

# PS/2 Keyboard **Extension Cables**

- · Color: beige
- PS/2 computers
- · 6-pin mini DIN female-to-male

· P		28548EX	
Part No.	Description	1	10
28548EX	PS/2 6' non-coiled .	\$4.35	\$3.89
111053EX	PS/2 10' non-coiled	5.49	4.99

# Flexible Multilink RS-232 Tester & Breakout Box

Visually indicates the status of lines 2, 3, 4, 5, 6, 8, 20 and 22 on the DTE and DCE sides. Provides signal status at a glance. Complete cable "breakout" & reconfiguration. Connectors: DB25 male and DB25 female.



 Cable length: 4" • Size: 3.5"L x 3.3"W x 1.0"H Includes: handy carrying case, 10 jumper wires and a device wiring chart

Part No.	Description	1	10
25945EX	Tester/breakout box	\$22.95	\$19.95

#### **RS-232 Line Status Tester**

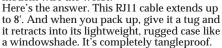
Identifies simple interface problems which you can repair yourself. Targets the status of lines 2, 3, 4, 5, 6, 8, 11, 19 and 20. Connectors: male to female DB25.





# No more tangled cables on the road!

No matter how carefully you stow your laptop's cables, don't they always seem to end up in a tangles mess! And isn't that skinny RJ11 phone/ modem wire the worst?



Part No.	Description	Price
233349EX	RJ11 retractable cable	\$4.95

## **Switch Box Adapter Cables**

#### 114913EX:

 5' gray 5-pin DIN M-M coiled cable for P/N 114155EX switch box, pg 79

#### 177261EX:

2' gray 6-pin mini DIN M-M non-coiled cable for P/N 79177EX switch box, see website



174772EX: • 6' black 6-pin mini DIN M-M 174908EX: • 6' gray 6-pin mini DIN M-M

112627EX: • 10' gray 6-pin mini DIN M-M non-coiled cable for P/N 79177EX switch box, see website

Part No.	Description	Length 1	10
114913EX	5-pin DIN	5' (gray) \$4.95	\$4.49
177261EX	6-pin mini DIN	2' (gray) 2.95	2.55
174772EX	6-pin mini DIN	6' (blk) 4.95	4.25
174908EX	6-pin mini DIN	6' (gray) 5.75	5.15
112627EX	6-pin mini DIN	10' (beige) 7.95	7.25
205655EX	6-pin mini DIN	25' (beige) 8.95	7.95

# Save Space! Slim-Line D-Sub Gender Changers







These revolutionary slim-line gender changers are only 0.69" wide, eliminating the space problems caused by standard gender changers. When plugged into your existing cable, they add only 0.44" to the cable. All-metal cases.

- Captive locking screw (male)
- Captive locking nut (female)
- Grounding tangs (male)

Part No.	Descri	otion 1	10
18497EX	D-sub	9-pin male\$4.95	\$4.49
18489EX	D-sub	9-pin female 4.95	4.49
119319EX	D-sub	15-pin female HD 4.29	3.89
119301EX	D-sub	15-pin male HD 4.95	4.49
18446EX	D-sub	25-pin male 4.95	4.49
18420EX	D-sub	25-pin female 4.95	4.49

Order Anytime 24x7x365 Call today! 1-800-831-4242 or Log on to www.Jameco.com



# The home of the future is yours now. Enjoy convenience and protection with our automated security, appliance & lighting control.

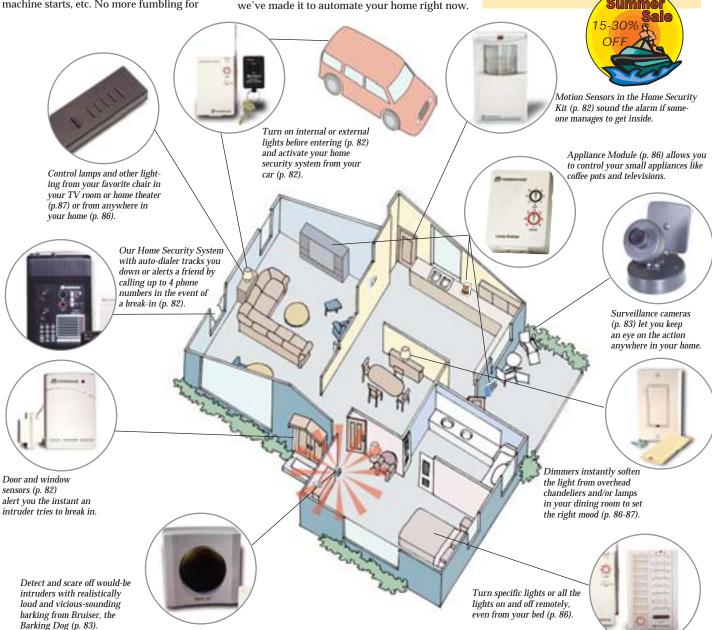
Our wireless automated lighting and security systems offer convenience and peace-of-mind at a price anyone can afford.

MAGINE CONTROLLING your home lighting, appliances and stereo system, or securing your home with the touch of a button. Pull into the driveway and the house lights come on. Push a button from your bedroom and all the house lights go off. Push another button in your home theater or TV room, and the lights dim to ideal viewing levels. Push a button and your security system is armed. Push a button again and your coffee pot starts, air conditioner stops, washing machine starts, etc. No more fumbling for

hard-to-reach switches. No more trying to remember which switch controls what. No more wondering if that noise downstairs might be an intruder.

On the next several pages, you'll find products that can transform your home into a safe, comfortable haven for you and your family. There's no wiring to run, no monthly fees, and, best of all, they're priced so low there's no reason to spend another night feeling vulnerable. So go ahead, discover how easy and affordable we've made it to automate your home right now.

DIY Home Upgrades	Page
Home Security Systems	82
Home Surveillance Systems	83
Stand Alone Security Systems	84-85
Whole-House Lighting Control (RF)	86
DIY Home Lighting Upgrades	87
Home Automation (Kits)	88-89





# Dial-out Home Security Alarm System stops break-ins without breaking your budget. No monthly fees. No wires. No strings.

SK ANYONE who's ever gone through it: When someone breaks into your home or apartment, they don't just take your treasured possessions. They steal your sense of security. You deserve to feel safe! Now you can get a monitored home alarm system that's every bit as effective without the high cost. No wires. No contract negotiations. No mess and without those never ending fees!

Our Home Security Alarm System with wireless X10 technology sets up in minutes without any new wiring. It protects you whether you're at home or away. And if anyone tries to break in, dual piercing alarms alert the whole neighborhood and the Security System Dial-up Console calls up to four numbers you've selected for help with your pre-recorded message.

No codes, no scrambling, no false alarms. Push a button on the Security Keychain Remote to disarm the system and turn on the lights before you enter. Push it again to arm the system after you leave. There are no codes to remember, no race against the alarm. A "Panic Button" on either remote instantly activates the alarm if you're in danger.





After playing your prerecorded message, the Console becomes a room monitor, allowing the person to listen in for clues to activity or even identities.

# Add-On Components for Home Security Alarm System

Customize your security system to protect your entire home with these 100% compatible add-ons. You may use up to 16 combined door/window and motion sensors and up to 16 combined house or keychain remotes.

Security Remote Control Arms and disarms entire system or perimeter (door/window) sensors only. Disables active alarm, activates alarm with panic button. Turns up to four lights or groups of lights on or off. Works anywhere in the house, up to 100' from Console.



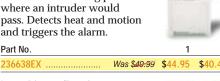
Was \$39.99 \$35.95 \$32.75

236620EX	Was \$21.95	\$19.75	\$17.75
Blaster Siren		14	
Wireless, battery-opera	ated	10	100
alarm mounts outside	up to		10
100' from Console. Sou	ınds	6	1(0)
a neighborhood-pierci	ng,	(5)	-
110-decibel siren for 4	minutes	4	00
or until deactivated.		100	
Part No.		1	4

Here's all you get for just under \$200! Ten-piece home security alarm kit includes:



Security System Indoor Motion Sensor Install indoors facing paths where an intruder would pass. Detects heat and motion and triggers the alarm.



Lamp Dimmer/Receiver Allows you to control (on/off/dim) lamps manually or remotely. Plug controller into wall outlet; plug lamp into controller. 300W max.

236591EX ..... Was \$13.45 \$11.99

Security Keychain Remote Control Arms, disarms, disables active alarm, and activates alarm with panic button. Turns lights on or off. Part No.

236646EX ..... Was \$16.25 \$14.59 Door/Window Sensor Triggers alarm when a door or window is opened.

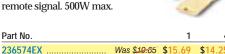
Motion Sensor with 2 Floodlights

DOES NOT TRIGGER ALARM.

Mounts outside under eaves. Turns on floodlights and selected indoor lights either when motion is detected or at dusk.

236611EX ...... Was \$54.75 \$43.79

Master Dimmer Switch/Receiver Replaces standard, singlelocation incandescent light switch. Allows manual control of connected fixture, or responds to remote signal. 500W max.



Companion Dimmer Switch/Receiver For incandescent lights controlled by two or more switches, order one Master Dimmer Switch (above), plus one Companion Switch for each additional switch location.



Was \$19.99 \$17.99 \$16.99

Part No.



# Control up to 16 cameras with one hand. Keep an eye on the kids, the pool, the front door, and the babysitter, all at once.

OU'RE ALONE in the house on the computer. You've got the kids playing outside, the baby napping in the nursery, the hole-digging dog in the backyard, and now there's a knock at the front door. You can't be in ten places at once, but with our Surveillance Kit and Accessories, you can do the next best thing: from one location, you can see and hear exactly what's going on all around your home or office. And not just in ten places, but in up to sixteen areas as close as inside your home, or as far as 100' away.

#### Installs anywhere without wiring.

If you've seen surveillance cameras that were a hassle to install and awkward to monitor, wait until you see these. They're so compact, they're virtually unnoticeable. They require no wiring beyond plugging a cord into an electrical outlet. They use X10 radio frequency technology to send both *audio and color video signals* right through walls to your TV. And you can view the image from any camera, or scan up to 16 of them, with a single remote control.

Just place or screw-mount the cameras wherever you want them, and plug their power supply into an indoor or outdoor AC outlet. Use the supplied cable to connect the Audio/Video Receiver into your TV. Plug the transceiver into a wall outlet. Now you're ready to sit back and use the remote to view any or all surveyed areas. The remote automatically turns each camera on when you select it for viewing and turns it off when you switch to another camera.

# The signal travels up to 100' so you don't have to. Effortlessly monitor activities in and around your home to prevent accidents, break-ins, and to make sure your children are safe. Our wireless Surveillance Kit plugs into your TV so you can scan the camera locations with the remote control.







#### Home security is just the beginning.

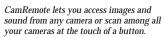
Put a camera on the front porch and see who's outside your door before you open it. Put one in the garage to protect your expensive power tools. Put one in the backyard to keep an eye on your kids and pets. Put one by the pool to prevent accidents. Put one in the nursery to keep an eye on the baby. Place a camera to see who's coming up the driveway too. Use them at your small business to keep tabs on supply closets, inventory and other valuable assets.

Kit contains all you need to monitor one area. Our four-piece Surveillance Kit gives you everything you need to monitor one area—one wireless camera with power supply, one receiver which plugs into your TV's audio/video jacks, one CamRemote remote control, and one transceiver. To survey additional areas of your home, just add more cameras—one receiver manages input from as many as 16 cameras.

# You get all this for just \$101.95.



Transceiver plugs into a wall outlet, receives commands from the remote, and sends a RF signal to the cameras to turn off or on.



Tiny full-color camera with

built-in microphone fits in



Receiver plugs into the audio/video ports on your TV. It receives signals from up to 16 cameras and sends them to the TV.

l	Part No.	Description	Price	
l	236494EX	Surveillance starter kit	Was \$119.95 \$101.95	

# **Customize Your Surveillance System for Your Home**

The Starter Kit gives you the basics, but in order to keep tabs on all areas of your property, you'll probably need to survey more than one area. These accessories allow you to customize a system designed for your home and convenience.

#### **Additional Camera**

Place up to 16 cameras around your home & office.

Part No.		1	4
236662EX	Was \$62.95	\$53.49	\$48.75

#### Additional Audio/Video Receiver

For each additional TV you'd like to use as a monitor, add one A/V Receiver.

236654EX ...... Was \$43.45 \$36.89 \$33.49

#### Additional CamRemote & Transceiver

Stash an additional CamRemote in every room with an A/V Receiver (above), and keep watching as you move around the house.

236726EX ...... Was \$29.99 \$25.49 \$24.19

# Camera Battery Pack

Get up to 4 hours of cord-free power. Makes the Camera completely portable

236671EX .....



# Deadly realistic digital guard dog sends prowlers packing.

OME ALONE? A prowler has you marked as easy prey. But as he approaches—long before you would hear a sound—your trusty companion detects his presence and unleashes a torrent of deep-throated, flesh-ripping barks so



frighteningly realistic. Bruiser, the Barking Dog Alarm System makes it sound like you've got a huge, vicious guard dog just waiting to get loose.

#### Set up in 15 minutes —no wiring.

Mount the motion sensors outside or indoors, plug in Bruiser near a likely entry point and X10 technology does the rest. The instant either

sensor detects movement and heat, it sends a radio frequency signal right through the walls to the Bruiser

walls to the Bruiser
up to 100' away.
Add switches/
receivers (p. 74) or
lamp dimmers
(below), and those
fixtures will light five

seconds after the barking starts, just as if someone were up and investigating. For additional security, you can also turn the barking and the lights on or off from your remote.

#### **Bruiser, the Barking Dog Alarm System**

Includes barking dog alarm with volume control, two outdoor motion sensors, and one two-button keychain remote. Dog requires AC outlet and 9 "C" batteries (not included) for backup in case of a power failure.

Part No. Description Price
235969EX Bruiser Alarm System Was \$129:95 \$118.99

#### **Bruiser Accessories**

Customize your Bruiser Alarm System with these compatible accessories.

Note: The Bruiser sensors and remotes are not interchangeable with those used by the Home Security Alarm System.

#### Lamp Dimmer/Receiver

Allows you to control (on/off/dim) lamps manually or remotely. Plug controller into wall outlet; plug lamp into controller. 300W max.



236591EX Was \$12.45 \$11.99 \$11.

Additional Bruiser Outdoor Motion Sensor

Requires 4 AA batteries (not included).

236806EX ......\$29.99 \$28.49

Additional Bruiser Keychain Remote 2-button remote controls barking dog and one other device.

236558EX ...... Was \$17.35 \$14.75 \$13.39



# Affordable wireless full-color video monitoring!

Your own full-color indoor video monitoring/ security system is only seconds away! The compact, wall-mountable camera transmits up to 150 feet on the reliable 2.4 GHz band for clear, convenient viewing on a standard TV or VCR. Set up is quick and easy. Simply mount the camera, choose day or night mode, adjust the manual focus, and apply power from the included A/C adaptor. Then choose a convenient spot for your monitoring station, hook up your TV or VCR, and you're ready to go. Plus, the expandable FM receiver comes ready to monitor up to 4 locations, by simply installing additional cameras. Complete monitoring package includes camera, receiver, remote control, power adapters and RCA cables.

- · Output level: 1Vp-p
- Power requirements: 8VDC @ 400mA
- · Weight: 3.0 lbs.

#### Wireless Receiver:

• Size: 4.1"W x 2.9"D x 1.0"H

#### Wireless Camera:

- Operating frequency: 2.414 to 2.468GHz
- · FM audio/video modulation

# Quick and easy set up at a fabulous price, it's the ideal solution for security monitoring. Summe Video input level & impedance: 1Vp-p, 75Ω

Audio input level & impedance: 1Vp-p,  $600\Omega$ 

· Illumination: 0.5 lux

• Size: 5.5"W x 4.7"D x 4.7"H

Part No. Description

2.4GHz wireless camera Was \$69.95 \$55.95

# 4-Channel 2.4GHz Wireless Audio/Video Receiver and 10mW Transmitter

#### Make your camera wireless up to 492 feet!

- · Transmission range: 492' (150M outdoors); 164' (50M indoors)
- · 4-channel switch selectable on transmitter
- · Output power (transmitter): 10mW
- Output impedance: 50Ω typical
- · Video input: 1Vp-p composite
- Audio input: 2Vp-p max.
- RCA jacks for audio and video connectors

#### Receiver: · Video loss detection

- and freeze channel
- · Non-volatile memory protects system set-up from power loss
- Mute and alarm trigger port
- Size: (transmitter) 4.5"L x 3.2"W x 1.0"H
- Size: (receiver) 6.5"L x 5.5"W x 1.4"H
- · Weight: 1.8 lbs.

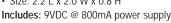
Includes: RCA cable, 12VDC@500mA adapter, RCA to F connector adapter (receiver unit only)

Part No.	Description	Price
192858EX	4-channel transmitter	\$89.95
192866EX	4-channel receiver	124.95

# 2.4GHz Wireless Antenna Booster

#### Extend Video Transmitting Distance

- · Output power: 700mW (±10%)
- · Input power: 10mW ~ 60mW
- Consumption 350mA
- · Impedance output:  $50\Omega$  typical (to antenna)
- Frequency: 2400 2500MHz Size: 2.2"L x 2.0"W x 0.8"H



moraucs.	ADO C OCCITIA POWER Supply	
Part No.	Description	Price
215175EX	Antenna booster	\$199.95
179872EX	Wireless extension cable	10.99

215175EX

# 4-Channel 2.4GHz Wireless Audio/Video Transmitter System

CCIR, NTSC, PAL, EIA Format

- · ISM Band:
- 2.413 2.470GHz Four selectable channel transmitter
- and receiver Antenna mode:
- dipole (omnidirectional) Impedance: 50Ω typical
- · Video input: 1Vp-p composite
- Audio input: 2Vp-p max.
- · Weight: 3.2 lbs.

192858EX

192866EX

179872EX

Includes: Two 9VDC @ 300mA with 1.3mm x 3.5mm center positive plug, and two 2.5mm male to RCA patch cables

Description	Price
4-ch. wireless system	\$149.95

# Video Text Display Module

NTSC composite (1Vp-p, 75 $\Omega$ )

- · Asychronous serial input: 2400, 4800,
- 9600 or 19.2Kbps 30-pin SIMM form
- factor (socket supplied)
- Compatible with Parallax Basic Stamp®, see pg 92 Auto-switching genlock overlay or internal
- video generation 12 x 18 pixel character pattern
- Power supply: +8-16VDC @ 65mA input; 5VDC aux. output (regulated) provided Size: 3.5"L x 1.1"H
- Displays up to 308 characters (11 lines of 28)

Part No. Mfr. Cross Ref. No. Price 162051EX .....\$69.95

Over 99% of our products are in stock! Place your order by 6PM EST for same business day shipment.

# Mount your video camera almost anywhere

As steady as a tripod, the Window Camera Mount lets you anchor that video camera to any glass surface at any height.

Mount your video or CCTV camera on any window or other non-porous surface, and capture what you've never been able to before. This heavy-duty metal mounting bracket attaches securely to any glass surface with a strong lever-activated 3.25" neoprene suction cup. Mount your camera onto the tripod-style screw. vour car window Adjust to any position,



Mounts easily to

Camera not included

and you're ready to shoot hands-free. It's perfect for temporary surveillance of your business or home. For cameras up to 3 lbs.

Part No.	Description	Price
222746EX	CCTV camera window mount	\$39.95

# Mini Indoor Pan & Tilt Mechanism

#### Continuous Pan

Price

- Automatic scanning: 0° 355° angular travel; pan clockwise and counter-clockwise
- Manual tilt: 0° 90°
- Pan speed: 5°/sec.
- · Maximum load: 4.4 lbs.
- Power consumption: 1 Watt
- Size: 2.5"Dia. x 2.4" H
- · Warranty: 2 years continuous use · Wt.: 0.4 lbs.

Includes: 24V @ 150mA power supply, wall mount bracket and mounting hardware

Part No.	Description	Price
215407EX	Mini pan/tilt	\$49.95

# Create an R/C plane-cam, model train-cam, or even a

This mini-wireless camera can be used for professional or home surveillance or... just to have fun!

French poodle-cam!





and ride the waves of a true sailor.

Attach to a model train and get the "Engineers point of view".

Now you can place a color video camera (with sound!) almost anywhere! This super-small  $(1" \times 3/4" \times 7/8")$ , 3 Lux wireless camera and receiver combo delivers sharp, full-motion video images at 380 lines of resolution. With its 150-foot (unobstructed) range, light weight, and 9-volt battery power, you can now add video capability to a world of hobby applications.

Part No.	Description	Price
24002EEV	Mini wiroloss color camora	400 05



# Hi-value, low cost 5" monitor system goes anywhere, sees everything, even in low light!

Our convenient low-priced wireless A/V monitoring system easily extends the reach of your eyes and ears to keep watch over IMIN your home or business. Just plug it in and you are ready to go. Pick up the lightweight monitor with its convenient handle and use battery power while you keep tabs on your domain anywhere within receiving range. Slide the camera's power switch into the "night" position and the infra-red LEDs allow you to see in very low light. The built-in RCA jacks allow you to run the signals directly into your VCR for true 24/7 security. The set comes complete with one camera and monitor.

#### **Extra Eyes and Ears**

Expand your video security system with up to three of our versatile add-on cameras which



ters. Up to 4 rooms can be observed from a single monitor. Easily switch between cameras with a four-step, 3 to 10 second auto-switching control. The camera's wide field of vision and flexible tilt-andswivel mount make these black & white cameras a perfect addition to your monitoring set-up. Reliable 2.4 GHz technology transmits clear video and audio to your receiver and monitor.

#### Monitor Receiver Specifications:

- · 5" black & white CRT screen with contrast,
- volume, and brightness controls Frequency: 2400-2483 MHz
- · Sensitivity: -80 to ~ -85dBm
- Video output: 1Vpp, 75Ω
- Audio output: -8dBs, 47kΩ · Horizontal resolution: 330 lines
- · Automatic camera switching

#### Requirements:

12VDC @ 1A power supply (included) or 10 C size batteries (not included)

#### Camera Specifications:

- · Transmit frequency: 2400-2483 MHz
- Modulation: FM
- · Max frequency deviation: 20MHz
- · Audio sub carrier frequency: 6.0-6.5 MHz
- · Usable range: 50-100 meters
- · Infrared detection range: 1-2 meters

Requirements: 12VDC @ 300mA power supply (included)

Part No. Description

Price

Water

Resistant

235045EX 5" black & white monitor & camera \$135.95

#### 4" TFT LCD Monitor

#### NTSC Format

- TFT color LCD
- · Resolution: 234 x 383dpi
- Backlight: cold cathode fluorescent lamp
- · Power source:
- 12VDC @ 400mA · 5" long lead wire with 4
- position molex type power connector Tint color and brightness adjustable
- Size: 4.1"L x 3.3"W x 0.7"H (display)
- Size: 4.7"L x 3.3"W x 1.3"H (unit)
   Weight: 0.7 lbs.

Part No.	Description	Price
172742EX	4" color LCD monitor	\$159.95

# **SONY®**

# Black & White **Low-Light Camera**

#### Sony Chipset

- · Signal to noise ratio: >48dB
- · Requires 12V power source (not included)
- 6" wires with 4-pin Molex-type keyed connector
- EIA system 537(H) x 505(V)
- Composite output with 420 line resolution
- Temp tolerance: -5 to +40°C Lens: 3.6mm Shutter speed: 1/60 1/1000 FOV: 92.6°
- Video output: 1.0Vpp composite video/75Ω
- Size: 1.3"L x 1.3"W x 1.0"H One-year warranty

Part No.	Description		Price
150931EX	Camera board	Was \$89.95	\$85.45

# Black & White Camera

## EIA Format

- 510(H) x 492(V)
- S/N ratio: 46dB
- 1/3" CCD image sensor
- · Horizontal resolution: >350 lines
- Scanning system: 2:1 interlace
- Sensitivity: 0.7 lux/F2.0
- Video output: 1Vp-p, composite video 75Ω
- Power supply: 12VDC (recommend P/N • Size: 1.3"L x 1.3"W x 1.2"H 162996EX, see web)
- FOV: 92° Power consumption: 110mA
- · Electronic shutter: 1/125,000 sec. (linear)

Part No.	Description	Price
171029EX	Camera board	. \$44.95

# Color Camera Board

# NTSC Format

- 5.0 lux • FOV: 92 330 TV lines
- 3.6mm lens/F2.0
- 1/3" image sensor
- Low power consumption
- · Automatic exposure, gain and white balance • Size: 1.0"L x 0.9"W x 1.1"H

Part No. Description 171011EX Camera board ..... \$73.95

# Place your order by 6PM EST for same business day shipment.

# Don't be caught vulnerable at night. Add a solar-charged halogen light!

Dark spots around your business, house or neighborhood are vulnerable to vandalism or burglary. To protect your property, equip it with our new outdoor security lights and motion sensors. All you need are simple tools to mount the unit to the wall. No complicated wiring or electrician needed. The built-in batteries are rechargeable by sunlight, so if the main power goes out you still have security lighting. The solar panel, which has a 12' cord, can be

#### positioned for optimum light exposure. Charged a minimum of 3 days before initial use for proper operation.

- · Lights up to 60 times on a single charge
- Charges by day, lights by night
- Complete with built-in motion detector
- rechargeable battery and bright halogen light Easy to install · Weight: 7.1 lbs.

Part No. Description Price 219580EX Solar outdoor floodlight Was \$79.95 \$71.95

# Color Interline Camera

- · EIA format
- FOV: 530
- 5 lux sensitivity
- 1/3" CMOS imáge sensor EIA format: 512(H) x 492(V)
- · 330 horizontal line resolution
- · 2:1 scanning interlace system
- Video output: 1V p-p; 75Ω
- · S/N ratio: 40dB
- · 6mm lens/F2.0
- Electronic shutter: 1/60 1/1,200 sec.
- · Adjustable mounting bracket
- · Connectors: 1 standard RCA female jack for video, and in-line 2.1mm power-plug connector for power supply • Size: 2.6"L x 0.9"Dia

Includes: Adjustable mounting bracket, instruction sheet and 9V @ 100mA power supply

Part No.	Description	Price
185017EX	Color camera	\$99.95

# Mini Enclosed Color NTSC Camera

- 1/4" CCD sensor
- · 350 horizontal TV lines
- Electronic shutter: up to 1/120,000 sec.
- 1 lux/F2.0

ctricity

- NTSC system with 512(H) x 492(V)
- · Scanning system: 2:1 interlace
- Signal to noise ratio: 48dB Lens: 3.7mm/F2.0
- Video output: 1Vp-p, 75Ω
   FOV: 92 Size: (enclosure) 1.3"L x 1.1"W x 0.9"D

Requires: 9VDC - 12VDC @ 500mA power supply

(recommend P/N 100853EX, pg 24) Includes: BNC/Power cable and mounting hardware

Part No. Description 215423EX Mini enclosed camera ......\$129.95



transmitters, and receivers · Gain: 3dB · SMA male

• Size: 3.6"L

Part No. Description Price 179864EX 2.4GHz antenna ..... \$15.95





# Control every light in your home from your chair, bed, or even your car.

Our automated lighting control system using X10 technology lets you operate the lights in your home from your car or from anywhere in your home. You can turn on, turn off or dim lights, even if they couldn't dim before. A single button can operate individual lights, groups of lights, whole rooms, or even the whole house. It works with lamps, wallswitched fixtures, even appliances.

As easy as replacing a switch. No new wiring! Just plug your lamps into Lamp Dimmers and replace your wall switches with Master

Dimmers. Replace multi-location switches with a Master Dimmer and Companion Switch(es). Plug the Transceiver into a wall outlet, and you're done. The remotes communicate with the transceiver via radio frequency signals that travel up 100', even through walls. That means you don't have to be in the same room as the lights you're controlling—you don't even have to be in the house. The transceiver sends your commands to the dimmers through the wiring already in your walls.

# **Home Lighting Control Kit**

Our economically priced starter kit contains everything you need to control one lamp and one wall-switched lighting fixture from your car or home. To control multiple lights from one place, you'll want to add dimmers for each light source in your home or garage. Order additional Keychain Remotes for other family members, and additional House Remotes for upstairs, bedrooms, or wherever you need them. You'll find these additional components and accessories listed below.

Part No.	Description	Price
236478FX	Home lighting control kit	Was \$99-99 \$79.99

#### **House Remote Control**

Turns on or off, dims or brightens up to 16 individual lights or up to 16 groups of lights.

#### Transceiver

Receives signals from your remotes up to 100' away and sends on/off/dim commands to lamp and lighting fixture receivers through your home wiring.

#### **Keychain Remote Control**

Turns on/off and dims two lights or two groups of lights from within a closed car.

#### Lamp Dimmer/Receiver

Allows you to control (on/off/dim) lamps manually or

#### Master Dimmer Switch/Receiver

Replaces standard light switch. Allows manual control of connected fixture, or responds to remote signal.

#### Companion Dimmer Switch/Receiver

For use on fixtures controlled by two or more switches.





Light the porch and entry hall before

# **Customize Your Automated Home System with Compatible Add-On Components**

#### **House Remote Control**

Turns on or off, dims or brightens up to 16 individual lights or up to 16 groups of lights whose receivers are set to the same "address". For instance, turn off all downstairs lights with one button. Works up to 100' from transceiver. One remote controls all transceivers.

Part No.		1	4
236603EX	Was \$18.45	\$14.75	\$13.39

#### Keychain Remote

Turns on/off and dims two lights or two groups of lights from within a closed car. Up to 50' range.

Part No.		1	4
236558EX	Was \$17.35	\$14.75	\$13.39



#### Lamp Dimmer/Receiver

Allows you to control (on/off/dim) lamps manually or remotely. Plug controller into wall outlet; plug lamp into controller. 300W max.

Part No.		1	4
236591EX	 Was \$13.45	\$11.99	\$11.39



#### Mount-Anywhere 3-Device Wall Switch

Mount this pressure-sensitive switch anywhere you wish you had a wall switch. No wiring! Communicates with the transceiver via RF signals. Three buttons control three lights or groups of lights anywhere in the system. Fourth button dims.

Part No.		1	4
236566EX	 Was \$22.65	\$18.10	\$16.40



# Motion Detector with 2 Floodlights

Mounts outside under eaves. Turns on floodlights and selected indoor lights when motion is detected or at dusk.

Part No.		1	4
236611EX	 Was \$54.75	\$43.79	\$39.79

# Master Dimmer Switch/Receiver

Replaces standard, single-location light switch. Allows manual control of connected fixture, or responds to remote signal. 500W max.

Part No.		1	4
236574EX	 Was \$19.65	\$15.69	\$14.25

#### Companion Dimmer Switch/Receiver

For incandescent lights controlled by two or more switches, order one Master Dimmer Switch (above), plus one Companion Switch for each additional switch location.

Part No.		1	4
236582EX	Was \$12.55	\$11.29	\$9.39

# Plug-in Appliance Module

Controls appliances such as fans, air conditioners, dehumidifiers, coffeepots, stereos, TVs, etc. Rated at 15 amps, 1/3 h.p., 500W. Part No.

Part NO.			4
236857EX	Was \$14.99	\$11.99	\$11.39



See Pages 88 & 89 for Our New Home Automation Kits



# The lights fade. The hush falls. The excitement grows. The adventure is about to begin.

Experience the drama and convenience of remote controlled lighting in your home theater or TV room without spending a fortune or rewiring your home. At the push of a button, the Lutron Home Theater System dims all incandescent and halogen lamps and lighting fixtures in the room to your preset preferences, even if your lights couldn't dim before. As the lights fade, you'll feel the excitement of being in a real movie theater. Preset up to 3 more lighting "scenes" with the Four-Scene Remote and go from movies to games to reading to snuggling to lights-out, all without touching a light switch. The dimmers will even respond to many programmable TV remotes!

#### Installs in 15 minutes without wires.

Just plug your lamps into Lutron Lamp Dimmers and replace your wall switches with Lutron Wall Dimmers. That's all there is to it. You can operate any dimmer manually to control

a single fixture. Or pick up the remote control and operate all the lights simultaneously. The Favorite Scene Remote lets you recall one lighting scheme instantly. The Four-Scene Remote lets you preset up to four lighting tableaus. Order the right type of dimmer for each light

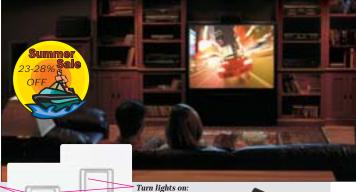
switch, but just one remote. Need help choosing the right components? Call our friendly and knowledgeable Technical Support team at 1-800-455-6119.

#### **How Dimmers Work**

Our wall switch dimmer dims/brightens/fades lights manually or from a remote signal. For use with fixtures controlled by a single wall switch. For fixtures with two or more

switches controlling the same light, order one master and a companion switch for each additional switch. Order one to replace each wall light switch. 600W capacity. Note: Can be "ganged" in the same wallbox, reducing load to 500 watts (2-gang) or 400 watts (3-gang).

Bring down the "house lights" without leaving your seat. No fumbling, no wires, no fuss.



· Tap once, lights

Turn lights off:

within 3 seconds

gradually go on to your

 Tap twice, lights go on to full illumination

predetermined light level.

Tap once, lights go off

Press or hold, lights go

off within 10-60 seconds



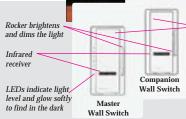
#### Four-Scene Remote Control

Recalls preset light levels for four scenes plus off, and fine tuning of light levels. Scenes are dependent upon dimmer settings. Range is 50' line-ofsight to receiver. Order one for each room.

Was \$94.95 235731EX Four-scene remote...

On - turn lights on to your favorite scene Off - press and hold for variable fade-to-off **Favorite Scene Remote Control** 

Extra remote packaged with several dimmers. Recalls preset light levels for one scene plus off, and fine tuning of light levels. Range is 30' line-of-sight to receiver.



#### **Multi-Location Wall Switches**

Buy one Master Wall Dimmer and an Accessory Wall Dimmer for each additional switch that controls the same light. Dimmers offer a large 600 watt capacity.

#### Order a bundle and save!

We've bundled Favorite-Scene Remotes with a variety of switches and passed on the savings to you!

# **Lamp Dimmer**

Just plug in your lamp. Sits unobtrusively on table. Dims/ brightens/fades lamp manually or from a remote control. Order one for each lamp. 300W capacity. Was \$84.25

235601EX Lamp dimmer .... \$64.95

# **IR Remote Controlled Dimmers and Accessories**

#### **©LUTRON** Remote Master Accessory Part No. Included Dimme Color Price Usage Dimme 235643EX Single Master Wall Switch Dimmer White For use on lights with one wall switch No Yes No 235660EX Single Master Wall Switch Dimmer No Yes No Light Almond For use on lights with one wall switch 235651EX Single Master Wall Switch Dimmer Nο Yes No Ivory For use on lights with one wall switch 235619EX Single Master Wall Switch Dimmer and Remote Favorite Scene Yes No White For use on lights with one wall switch 235635EX Single Master Wall Switch Dimmer and Remote Favorite Scene Yes No Light Almond For use on lights with one wall switch Single Master Wall Switch Dimmer and Remote 235627EX Favorite Scene Yes No Ivorv For use on lights with one wall switch 235678EX Master & Companion Wall Switch Dimmers Nο Yes Yes White For use on lights with two wall switches 235694EX Master & Companion Wall Switch Dimmers Yes Light Almond For use on lights with two wall switches No Yes Yes 235686EX Master & Companion Wall Switch Dimmers No Yes Ivory For use on lights with two wall switches Master & Companion Wall Switch Dimmers & Remote Yes 235707EX Favorite Scene Yes White For use on lights with two wall switches 235723EX Master & Companion Wall Switch Dimmers & Remote Favorite Scene Yes Yes Light Almond For use on lights with two wall switches Master & Companion Wall Switch Dimmers & Remote 235715EX Favorite Scene Yes Yes Ivorv For use on lights with two wall switches 236890EX Companion Wall Switch Dimmer No Yes White For use with any IR Master Dimmer 236902EX Companion Wall Switch Dimmer No Light Almond For use with any IR Master Dimmer No Yes 236911EX Companion Wall Switch Dimmer No No Yes Ivory For use with any IR Master Dimmer No \$84.25 235601EX Lamp Dimmer NA NA Royal Plum For use with any incandescent or halogen lamp Favorite Scene \$109.65 235598EX Lamp Dimmer and Remote NA NA Royal Plum For use with any incandescent or halogen lamp Four-Scene 235731EX Four-Scene Remote Control NA NA Royal Plum For use with all dimmers listed above \$04.95 NA 235803EX Decorative Screwless Faceplate NA White For one switch 235820EX Decorative Screwless Faceplate NA Light Almond For one switch NA 235811EX Decorative Screwless Faceplate NA NA Ivory For one switch 235838EX Decorative Screwless Faceplate NA NA NA White For two switches 235854EX Decorative Screwless Faceplate NA NA Light Almond For two switches 235846EX Decorative Screwless Faceplate NA NA Ivorv For two switches 235862EX Decorative Screwless Faceplate NA NA White For three switches 235889EX Decorative Screwless Faceplate NA Light Almond For three switches Ivory NA 235871EX Decorative Screwless Faceplate NA NA Ivorv For three switches Decorative Screwless Faceplate NA 235897EX NA NA White For four switches 235918EX Decorative Screwless Faceplate NA NA NA Light Almond For four switches Light Almond Decorative Screwless Faceplate Ivory For four switches

All Lutron Dimmers work on incandescent and halogen lights only.



iscover how easy it is to build your own home automation system while you amaze your friends and spoil your family with the convenience. Control your home lighting and other devices around the home with the touch of a button, or through your computer.

#### Velleman® Home Automation Solutions

Control devices and lighting systems using a touch pad, remote control or your computer. Use the chart below to determine the compatibility of Velleman's solutions with your applications.

Velleman Home Automation Kits Compatibility Table					Device Control		Lighting Control									
Description	Part No.	239A 16EX	12054763	128910EX	128928EX	23948AEX	239492EX	239505EX	939516EX	2.39A68EX	Touch Pad Controlled	Computer Controlled	IR Remote Controlled	Touch Pad Controlled	Computer Controlled	IR Remote Controlled
Relay Card K2633	239476EX	_								Yes	Yes					
15 ChannelReceiver/ Transmitter K6711/S6710	120547EX 120555EX		_	Yes	Yes	Yes						Optional			Optional	
Universal Relay Card K6741	128910EX		Yes	_	Yes	Yes				Yes	Yes	Yes	Yes	Yes	Yes	Yes
Computer Control Interface K8000	128928EX		Yes	Yes	_	Yes					Optional		Optional	Optional		Optional
Modular Lighting System K8006	239484EX		Yes	Yes	Yes	_	Yes	Yes	Yes	Yes				Yes	Yes	Yes
Dimmer Module K8007	239492EX					Yes	_							Yes*	Yes*	Yes*
Multi-Function Relay Module K8008	239505EX					Yes		_						Yes*	Yes*	Yes*
Slow-On/Off Dimmer K8029	239516EX					Yes			_					Yes*	Yes*	Yes*
8-Channel Touch Panel K8046	239468EX	Yes		Yes	Yes	Yes				_		Optional			Optional	

<sup>\*</sup> Requires: 239484EX (K8006), below

# Dimmer Module **\( \rightarrow 24-piece kit \)**

Easy pushbutton up/down control of light sources. A brief push toggles on/off, while continued pushing engages dimming action. Memory function maintains preferred level. Includes soft-start function. Suitable for low voltage halogen lighting.

- For use with K8006 modular light base unit (P/N 239484EX, below right)
- Òperating voltages: 110-125 or 220-240VAC @ 50-60Hz
- Maximum load: 2.5A (550W/220V; 275W/110V)
- Transient suppressor to avoid radio/TV interference according to EN55015
- Dimming speed: approximately 3.5 seconds
- Size: 2.6"L x 2.2"W x 1.0"H

Part No.	Description	Price
239492EX	K8007 Dimmer module kit	\$22.95

# Slow-On/Slow-Off Dimmer

31-piece kit

Microprocessor controlled dual mode operation. Slow-on/slow-off dimmer with two independent and programmable delays. Dimming directions change

with each key press. Has two lighting modes. Mode one provides control for slow-on/slowoff dimming and total light level depending on key pressed. Mode two provides instant full power lighting for a programmable time and then the light slowly fades to zero.

- · For use with K8006 modular light base unit (P/N 239484EX, right)
- · 2 programmable delays: from 1 second to 1 hour
- · No memory loss in case of power failure
- Soft-start function that prolongs life of bulb AC power: 110-125 or 220-240VAC @ 50-60Hz
- Maximum load: 2A (200W/110V: 400W/220V)

Part No.	Description	Price			
239516EX	K28029 Slow on/off dimmer	\$22.95			

# **Multi-Function Relay Module**

📤 30-piece kit

Fourteen different functions including timers, switching, flashing, interval, and random switching. Two pre-programmed delays. Learning mode for delays of 2 seconds up to 12 days. Pushbutton control. EEPROM for delay time storage in case of power failure. On-board transient filter for relay contacts or loads (selectable). Suitable for control of incandescent lighting, halogen lighting, fluorescent lighting, fans, valves, buzzers, and more.

- For use with K8006 modular light base unit (P/N 239484EX, below right)
- Operational voltages: 110-125V or 220-240VAC @ 50-60Hz
- Maximum load: 2.5A (550W/220V; 275W/110V)
- Size: 2.6"L x 2.2"W x 1.0"H

Part No.	Description	Price
239505EX	K8008 Multi-function relay module	\$24.95

# Relay Card 29-piece kit

Connecting a number of relays to the outputs of an electronic network may seem very simple, but in reality it could create some problems

regarding the cabling.
This kit provides an attractive and compact alternative. Easy to assembly and can be connected instantly. Can be used with K8046, 8 channel touch panel (P/N 239468EX, pg 89). Requires 9VDC @ 300mA power supply (not included); see below.

4 x 3A relay outputs
Size: 3.0"L x 2.7"W

Part No.	Description	Price
239476EX	K2633 relay card kit	\$24.95
133891EX	9VDC @ 300mA power supply	3.95

# **Universal Relay Card**

64-piece kit

An electronic controller that switches higher currents while providing insulation between the controller and the controlled devices.

128910EX

· Relay Output: Max. 5A/220VAC

Contact Volt.: 12VDC/250mA
 TTL or CMOS inputs

Requires: 125 or 220VAC power source (recommended P/N 34315EX, pg 9)

Part No.	Description	1	10
128910EX	K6714 Universal relay card kit	\$59.95	\$53.95
144186EX	VR15M121C relay (JZC-22F) .	3.79	3.39

# **Modular Lighting System** Base Unit A 94-piece kit

Modular light control system for use with optional plug-in dimmer module K8007 (P/N 239492EX), plug-in timer module K8008 (P/N 239505EX) or plug-in slow-on /slow-off module K8029 (P/N 239516EX). Bus system holds up to five plug-in units. Optically-isolated push-button inputs can be controlled with K8000 computer interface card (P/N 128928EX) or K6711 IR remote control receiver (P/N 120547EX). Local control push-buttons included. LED power and channel operation indicators. Low-voltage (24VAC) control circuit for extra safety. Each plug-in slot is fused. Includes 10 LEDs for pushbutton illumination.

- 5 separated channels
- Max. output: 2.5A per channel (fuse protected)
- Pushbutton control current: 150mA
- Open collector control current: 25mA DC
- Power supply: 24VAC @ 300mA
- Supply voltage for modules: 110V to 240V
- Size: 4.2"L x 6.3"W x 2.8"H

Part No. 239484EX K8006 Modular lighting system kit ..... \$39.95

# **Vallemen Home Automation Control Interfaces**

# **User Definable 8-Channel** Touch Panel 105-piece kit

Ever wanted your own keyboard with your own personal layout and symbols? Here is the solution: simply print your keyboard layout on a transparent foil and make your own keyboard. The function of each key can be selected (momentary or toggle) and each key is backlit. It is even possible to simulate "classic radio keys" (only one output can be ON, similar to a rotary switch). One key can be defined as a preset memory or serve as an "all clear" key. Completing the features of this unique keyboard is a "click" sound when the keys are operated. The output can easily be connected to your applications or to several of our home automation kits on these pages: K8006 Base unit for home modular light system (P/N 239484EX), K2633 relay card kit (P/N 239476EX), K8000 computer interface

**Computer Control Interface** 

📤 301-piece kit

(P/Ns 120555EX and 120547EX, right).

Requires: DB25 cable (P/N 65787EX, pg 80)

· Analog inputs: four 8-bit (256 steps)

· Full opto-isolation with computer

3.5" driver disk w/ routines in C++,

Connects to printer port

of the printer. Works in

· 16 I/Os with optocouplers · Analog outputs: eight 6-bit (64 steps),

without interruption

control applications

transmitter/receiver

one 8-bit (256 steps)

QBASIC, Turbo Pascal

· Weight: 1.7 lbs.

Part No.

128928EX

Dimensions: 9.3"L x 5.3"W

such as the infrared

card kit (P/N 128928EX). K6714 universal relay card kit (P/N 128910EX).

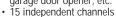
- · Max. 8 definable keys LED status indication
- for each key/output
- Soft-touch see-through panel with 8 keys
- Backlight with dimming function
- · Unique key-click feedback
- · Design mounting bezel unit included
- · Easy board-to-wire jumpers
- 4 different jumper selectable functions can be setup as: 8 independent keys (toggle or momentary key); 8 radio keys (simulation for rotary switch); 4 radio and 4 independent keys single key is reserved for memory key or all clear key
- Size: 6.5"L x 3.5"W x 1.4"H
- · 8 open-collector switches, 50V@100mA max.

Part No.	Product No.	Price
239468EX	K8046 8-channel touch panel	\$99.95

# 15-Channel Infrared **Transmitter & Receiver** 64-piece kit

120555E)

· Applications: remote onoff switch, alarms, garage door opener, etc.



 Transmitter/receiver range: ±30 meters

#### 120555EX Transmitter:

· Kit pieces: 37 Weight: 0.7 lbs.

Requires: 9VDC battery (not included); see below

#### 120547EX Receiver:

- · Each of the 15 outputs can be a change-over or pulse contact switch
- · Output: 50VAC @ 500mA max.
- PCB dimensions: 2.8"L x 5.7"W
- Kit pieces: 76 · Weight: 0.5 lbs.

Requires: 8-14VDC power supply (not included); see below

Part No.	Description	Price
120555EX	K6710 15-channel transmitter	\$69.95
120547EX	K6711 15-channel receiver	49.95
198791EX	9 volt battery	2.85
129314EX	14VDC@350mA power supply	5.19

# **Stepper Motor Controller Card** and Motor Kit 102-piece kit



This kit is very useful in any home automation project where positioning is needed (i.e. controlling valves, HVAC duct dampers, controlling natural light through window blinds, remotely turning down water heaters, or any home robotic projects). This controller card can be used with P/N 128928 (K8000 – computer interface board) and 16 of these kits can be connected to a single computer interface board. Bipolar and unipolar motors can be used with this controller card (1A maximum) and this kit comes with a high precision stepping motor (0.9 degree stepping angle).

- IC controlled via P/N 128928 (K8000)
- · Adjustable drive speed
- Check status of switches via computer interface board or drive another motor
- Emergency stop can be sent to one or all cards
- · Programmable in Visual Basic, Turbo Pascal for DOS, Quick Basic (Windows® 95/98/ME)
  • Power supply: 7 – 25VAC or VDC @ 1.5A
- · Board dimension: 3.9"L x 3.5"W

Part No.	Product No.	Price
263628EX	K8005	\$59.95

# **More Kits** @ www.Jameco.com/Kits



Visit our website for our complete selection of kits.



K8000 Computer control kit ...... \$139.95

See pages 81-87 for our selection of DIY remote-controlled lighting and home security solutions.

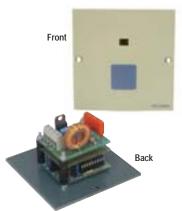


#### **Remote-Controlled Dimmer with Manual** Touch-Pad Kit 45-piece kit

This single channel IR receiver/dimmer works together with the 15-channel IR transmitter P/N 120555 (K6710). The receiver code can be set to 1 of the 15 transmitter codes so that 15 receivers can be operated independently of each other. This can be used in a number of applications such as light dimmers, garage door openers, and security applications. With its compact design, it fits into a standard light switch housing.

- · 4 identification codes, 15 channel codes
- 2 memories for preserving dim states or on/off
- · Maximum load: 2A (4A with heat sink)
- Supply voltage: 220VAC (50/60Hz)

Part No Product No. Price K6712 263687EX \$58.95







• Max. transmitter / receiver distance: 7m (23 feet)

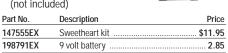
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# Love is in the air...The perfect gift for that someone special!

46-Piece Beating Heart Kit

This kit shows a beating heart. Give it to someone you love.

- · Power consumption: 8mA
- · Requires 9V battery (not included)



# 26-Piece SMT Flashing Heart Kit

Now introducing our new Flashing LED Heart kit in surface mount technology. Miniature components make it small enough to be worn around the neck or pinned to your shirt. An ideal introduction to SMD technology and it's a great attention grabber.



- · 6 LEDs flash alternately
- Size: 1.9"L x 1.7"W x 0.3"Thick
- Requires 3V lithium button cell battery (CR2025 or CR2032) not included.

Part No.	Description	Price
242739EX	Sweetheart kit	\$9.95
14162EX	CR2032 coin cell battery	1.25

# Display your message in thin air!

Tell the world how you feel! Just wave this high-tech wand, and messages seem to float in the air, lit up with



bright LEDs. Great for kids, parties or even to display distress messages. Your kit-building skill and the magic of electronics make it possible. Plenty of built-in messages come ready-to-run, or program in your very own 7-character memo. Requires two AAA batteries (listed below).

Part No.	Description	Price
239441EX	Magic message kit	\$19.95
249228EX	AAA batteries (4-pack)	2.20

# 1 Second - 3 Minute Timer Module

- · Output contact rating: 5A @ 200VAC
- Size:

3.0"L x 1.7"W x 1.2"H

Requires: Power supply 12V @ 50mA (recommend P/N 100095EX, see website)



FEREK

Part No.	Description 1	10
147871EX	1 second to 3 minute timer \$19.95	\$17.95
100095EX	12VDC@200mA power supply 3.95	3.49

# **Lead Acid Battery Charger Kit**

Charge and maintain both open and sealed type 6V or 12V leadacid batteries. Can be hookedup to the unit for an indefinite time, and will be kept in optimal condition. Selectable battery type and charge current, while the charging process is fully automatic. Requires a 18V/25VA transformer (not included; P/N 149956EX see web).

· Charge current: 0.3 or 1 amp (selectable)

Part No.	Product No.	PCB Dimensions	Price
239521EX	K8012	3.8"L x 5.5"W x 1.6"H	. \$39.95

# **Super Snooper Big Ear Audio** Amplifier Kit 17-piece kit

Listen through walls, hear conversations across the room or listen to sounds a block away. Add a parabolic reflector or mount the microphone in a tube, to isolate unwanted noise and make a directional microphone.

· Operating voltage: 9VDC (recommend P/N 151095EX, pg 30)

Includes: Instructions, outputs for speakers or headsets and schematic

Part No.	Dimensions	Price
151204EX	1.8"L x 1.0"W x 0.6"H	\$10.95

#### Flex Sensor

- Nominal
- $resistance{:}10k\Omega$
- Max. resistance: 30kΩ to 40kΩ, proportional to the degree of flexing or bending
- Applications: virtual reality data gloves, robotic, bio-metric, physics and engineering

Part No.	Description	Price
150551EX	Flex sensor	\$12.95

# Electronic timer, a perfect gift!

This fun-to-build kit is a perfect introduction to the wonderful world of electronics. When it's finished, this handy timer times events up to one hour in one minute increments using one-button. It's a perfect addition for your kitchen. 16 LEDs keep the count, and the



auto-off feature helps batteries last longer. Requires three AA batteries (not included).

Part No.	Description	Price
239409EX	Kitchen timer kit	\$19.95
249210EX	AA batteries (pack of 4)	2.56

# Clap-On, Clap-Off

Learn all about sonic remote control, and then enjoy the benefits of clapon, clap-off convenience. Control lights or other appliances (up to 24VDC at 3 amps) with adjustable

one-clap or two-clap activation. 42-piece kit LED indicator, microprocessor precision, and 5-hour "off" timer are among the advanced features of this easy-to-build kit. Requires 12VDC @ 15mA power supply (not included).

Part No.	Description	Price
242747EX	Clap-on, clap-off kit	\$19.95
127976EX	12VDC @ 15mA power supply	4.75

# Wheel of Fortune

This electronic wheel-offortune kit is a great way to have family fun on the road or at home. Push a button and 10 LED's imitate a spinning wheel gradually decreasing speed until it stops, lighting

up one LED. Create your own faceplates with different cash rewards, gifts and other prizes. Carry everywhere and play your favorite game. Requires 9V battery (not included).

Part No. Description Wheel of fortune kit ..... \$9.95 198791EX 9 volt battery......

# Police Siren

Enter the world of amazing electronic sounds and noises. Create and imitate sirens of all kinds by adjusting 3 controls on 17-piece kit the circuit board. Powerful sound with a 2W amplifier on the PCB. Requires 8-14VDC @ 1A power supply (not included).

Part No.	Description	Price
239450EX	K2604 Police siren kit\$	14.95
189325EX	8-14VDC @ 1A power supply	11.19

#### Quartz Clock Mechanism

Quartz clock mechanism for your self-made clock or as a replacement for damaged wall clocks. Suspension clip included. Requires one AA battery (not included). Size: 2.2"L x 2.5"W x 0.6"T.

Part No.	Description	Price
239661EX	Clock mechanism	\$3.49
249210EX	AA batteries (pack of 4)	2.56

# Motorized wooden kits, ideal for your child.

Your child will love building these kits and watching them walk. These kits come with "kid friendly" pre-punched wooden parts, gearbox, gears, shafts, switch, motor, and battery holder. A marvelous educational science project for ages 8 and up, and a great way to learn about gears and transmissions. These kits require no glue or soldering, just a few simple hand tools, and 2 AA batteries, (not included). Your kids will be building these kits in no time.

- Gear driven transmission
- · Requires: knife, screw driver, and long-nose pliers



Part No.	Description	Price
242915EX	Stegosaurus kit	\$16.95
242923EX	Tyrannosaurus kit	16.95
249210EX	AA batteries (pack of 4)	2.56

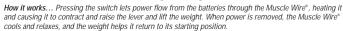
133292EX

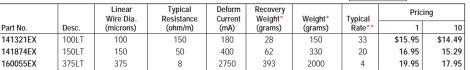
134148EX



# MONDO TRONICS Flexinol Muscle Wires®

These unique nickel-titanium alloy Muscle Wires® actually shorten in length when electrically powered, and can lift thousands of times their own weight. Length: 1 meter.





Multiply by 0.0098 to get force in Newtons

#### \*\* Cycles per minute, in still air, at 20° Centigrade

#### **Spider Shaft Couplers** Climax

209285EX

# 209285EX/106606EX:

- · 1 set screw per hub
- Hub OD: 0.625"Dia.
- Hub length: 0.56"

# 138288EX:

- 2 set screws (10-32 x 1/8)
- Size: 0.75"L x 0.5"D

Part No.	Description	1	10	100
209285EX	.156" shaft hub	\$.85	\$.65	\$.39
138288EX	.250" sleeve coupler	4.49	4.05	3.65

#### Spider Couplers · Used with motors

- · 1 set screw/hub

- Parts sold individually



#### · Hub OD: 0.625" Dia · Hub length: 0.56"

1 0113 301	u individually	1020000	.x (Spiuei)	,
Part No.	Description	1	10	50
162288EX	.125" (3.18 mm) hub	\$1.35	\$1.15	\$.86
161998EX	.197" (5.00 mm) hub	1.09	.89	.59
162270EX	.250" (6.35 mm) hub	1.35	1.19	1.09

Coupler

162288EX (Coupler);

Rubber

Spider

# Glass-Lens Red Laser Diode and **Line Generator**

133292EX: Laser Diode This lens design uses 3-element glass to collect almost all the power from the laser diode resulting in a brighter spot than many

typical laser applications. Operating voltage: 4.0–6.0VDC (recommend P/N 112070EX, pg 24)

Maximum output: 4mW

Beam size at 7m: oval – 5mm x 8mm

- Wavelength: 660nm
- Beam divergence: 0.2mrad
- Green LED indicator
- Module size: 2.0"L x 0.5"W



- Adjustable focus range: 50 cm to ∞
- Back focal length: 1.5mm Focal length: 8.0mm
- · Beam divergence: 2.0mrad
- Lens construction: 3E.3G (glass)
- Fan angle: 60°
   Length at 1 meter distance: 1.7 m

Part No.	Description	1	10
133292EX	Glass laser diode\$44.	95	\$39.95
134148EX	60° lens 12.	95	11.49

Laser Diode Module Class Illa Laser Product

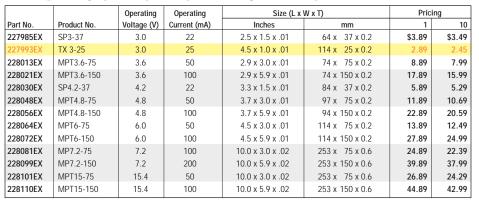
#### PowerFilm. Flexible Thin Film Solar Modules

138288FX

#### Wireless Electronics Series

The wireless electronics series offers a new opportunity to solve the old problem of limited-power for wireless electronics in portable and remote applications. These modules are lightweight, paper thin, and durable. With

their ultra-film profile, they are easily integrated with devices for solar recharging or direct powering. Specifically developed to recharge AA, AAA, plus 6 and 12 volt batteries.

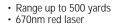


We're always looking for suggestions and feedback about the products we offer. Help us better supply more of the products you need. Feel free to drop us a line at:

AtHome@Jameco.com







Includes: 2 AAA batteries

Part No. Description 153605EX Black pen Silver brass



Size (L" x Dia") 5.2 x 0.4 ..... \$19.95 \$17.95

5.4 x 0.4 ...... 21.95

# 670nm wavelength

- Operates on 3VDC @ <5mW</li>
- · Beam diameter: 3.2mm
- Working distance: over
- 50 meters/yards (daylight), 200 meters/yards (dark)
- Size: 0.9"L x 0.3"Dia.
   One-year warranty

Part No.	Description 1	10	25
131203EX	Laser module, brass \$44.95	\$40.49	\$36.45

# **Laser Diode and Driver**

182932EX: Laser Diode

· Optical output power:

≤5mW maximum · Operating current: 30mA

 Operating voltage: 2.6V maximum · Lasting wavelength: 650nm typical

5.6mm packaging size

Beam divergence: 11° from center

161736EX: Laser driver w/ regulator

 Input voltage: 2.6-6VDC
 Input current: 40mA Part No. Description 650nm laser diode ...... \$11.95 182932EX \$10.79

161736EX Laser driver .. 7.95

# Vellemen Solar Cells

The perfect solar cells for students and experimenters in these rugged cases.

· Connection: lead

10

19.95



182932EX

161736EX

200221EX: 2V @ 200mA 215319EX: 3V @ 100mA 215327EX: 6V @ 200mA

Part No.	Product No.	Size (LxW) 1	10
200221EX	SOL4	3.0" x 3.7" <b>\$8.99</b>	\$7.99
215319EX	4-3.0-100	3.8" x 2.5" <b>14.29</b>	12.89
215327EX	4-6.0-50	3.8" x 2.5" <b>15.79</b>	14.39

# Illuminate the heavens...or just your presentation 20 football fields away.

127749EX

Ultra-intense green beam is much brighter, goes much farther and is easier on the eyes than standard red lasers.



Even the sleepiest audience will sit up and salute when you whip out a laser pointer that's green, not red...and so bright, you could be standing nearly half a mile away. Using a wavelength closely matched to the highest sensitivity of the human eye and built with

cutting-edge crystal technology, this laser projects a green beam so powerful you can see it against a clear sky at night. You won't believe how bright it is. Metal gift box, clip and 2 AAA batteries included. Power output <5mW. Wavelength: 532nm. 90-day mfg. warranty.

Part No.	Description	Price
223731EX	Green laser pointer	\$199.95





92

# PARALAX BASIC Controllers and Engineering Modules



BASIC Stamps are small computers using a variation of BASIC to control execution of many applications. The BS1-IC has 8 I/O lines, while the BS2-IC has 16 I/O lines which can be connected directly to buttons, LEDs, registers, and many other TTL level devices. Store data in the EEPROM before downloading a BASIC program.

Specification	IS:	127693EX	130892EX	
EEPROM		256 bytes	2048 byte	!S
RAM		16 bytes	32 bytes	
Cur. Draw @ !	5V	2mA run/20µA	8mA run/	100μΑ
Microcontroll	er	PIC16C56	PIC16C57	
Program spe	ed	2000/sec.	4000/sec.	
# of I/O Pins		8	16 + 2 ser	rial
Package		14-pin SIP	24-pin DII	Р
Part No.	Parallax N	lo.	1	10
127693EX	BS1-IC		.\$28.95	\$28.29

#### **BS2 Educational Starter Kit**

"Getting Started" kit is enhanced to include the What's a Microcontroller? (WAM) curriculum and includes all of the BASIC

Stamp hardware required to complete the activities and challenges. Includes: BASIC Stamp 2 module, Board of Education Programming Board, BASIC Stamp Manual, CD-ROM, jumper wires and a serial cable

282829EX 27207......\$158.95

# 

43.95

# **BASIC Stamp Prototyping Boards**

 Easy use of Stamp with prototyping area, 9-volt battery clips, I/O header, reset button, and 164726EX programming connector



130921EX: Use w/ P/N 130892EX, top 164726EX: Use w/ P/N 127693EX and 130892EX

raitivo.	r ai ailax ivo.		10
130921EX	27120 <b>\$23.9</b> 5	5	\$22.95
164726EX	27130 <b>58.9</b> 5	5	52.95

#### **Board of Education Full Kit**

The new Board of Education has two major changes. The jumper will select either Vdd (5V) or Vin (unregulated input voltage) to power the servos and the three-position power switch is either off (0), power to everything but servo



- Mechanically interlocked power supply to prevent dual connection of wall pack and 9V battery
- DB9 connector for BS2-IC programming and serial communication during run time
- Female 10-pin dual row connector for optional AppMods • P0 - P15 I/O pins

Includes: Board of Education carrier board, BASIC Stamp 2 module, pluggable wires, serial cable, CD-ROM and power supply

Part No.	Parallax No.	NEW) 1	10
283101EX	28102	\$118.95	\$96.99

# BASIC Stamp 2P Modules

New commands for HD44780 compatible LCDs, Dallas Semicoductor 1-wire & Philips I2C parts.

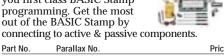


- Program execution speed: 12,000 instructions/sec.
- Scratch pad RAM: 128 bytes
- Program size: 8 x 2k bytes, 4,000 instructions
- Current draw @ 5V: 40mA run; 400µA sleep **184911EX:** • Number of I/O pins: 16 + 2 serial 184920EX: • Number of I/O pins: 32 + 2 serial Parallay No

rait NO.	raialiax IVU.		10
184911EX	BS2P24-IC 24-pin	. \$78.95	\$70.95
184920EX	BS2P40-IC 40-pin	97.95	88.95

# Stamp Works

Go beyond theory, into a wellwritten collection of 32 experiments that will teach vou first class BASIC Stamp programming. Get the most out of the BASIC Stamp by



Part No.	Parallax No.	Price
184946EX	27297	\$348.95

#### 50MHz BASIC Stamp 2SX Module · RAM size: 32 bytes

· Microcontroller: Ubicom SX28AC

Darallay No

- Program execution speed: 10,000 instructions/sec.
- EEPROM program size: 8 x 2k bytes, 4,000 instructions
- Current draw @ 5V: 60mA run/200µA sleep

Part No.	Parallax No.	Description	Size	1	10
159775EX	BS2SX-IC 24-pin	BS2-IC with additional RAM & EEPROM	1.2"L x 0.6"W	\$58.95	\$52.95

# Test & Measurement

#### Accelerometer Evaluation Boards

Dual Axis Evaluation board for the ADXL202, dual

177308EX



Part No.	Product No.	Description	1	10
177287EX	ADXL202EB	Dual axis	\$59.95	\$53.95
177308EX	ADXL202EB-232	w/ RS-232	159.95	144.95

# **Function Generator 2***1-piece kit*

Sine, Triangle and Square Wave

Volts required: 5-12 VDC

· Scratch pad RAM: 64 bytes

• Number of I/O pins: 16 + 2 serial

Great for prototyping electronic circuits. Produces waveforms at frequencies continuously variable from 1Hz to 100kHz.

Dimensions: 4.1"L x 1.5"W

Requires: 12VDC supply or ±6VDC split supply (recommend P/N 20626EX, top right)

Part No. Description 10 20685EX JE2206 function generator kit \$24.95 \$22.95

# Audio and Amplifier Kits

# **FM Stereo Transmitter Mini**

37-piece kit

Run your own FM radio station! Plug any stereo signal into this unit and it will be transmitted to any FM radio. Tuneable from 76-108MHz. Plug in a CD player or tape

deck and you have a wireless link to an FM radio within 200 feet.

• Dimensions: 2.7"L x 2.0"W • Separation 40dB Requires: 9VDC power supply (recommend P/N 151095EX, pg 30)

Part No.	Description	1	10
151239EX	FMST-100 stereo kit	\$29.95	\$26.95

vellemen 30-Watt Stereo

# Power Amplifier 38-piece kit

General purpose stereo amp for audio applications.

- · RMS output: dual 15W @  $4\Omega$  or dual 10W @  $8\Omega$
- Frequency bandwidth: 7Hz to 60kHz (-3dB) • Separation: 70dB
- Supply voltage: 24VCT @ 2A (recommend P/N 101864EX, pg 22) • Dimensions: 2.8"L x 2.0"W

Part No. Description 129138EX K4003 Stereo power amp. kit \$29.95 \$26.95

# Power and Motor

# **Dual Adjustable Regulated** Power Supply 48-piece kit

Build a dual adjustable power supply for your circuits. Outputs positive-negative voltages from ±5 to ±15VDC.

- 120VAC input
- · Adjustable positive and negative supplies ±5 to ±15VDC, 175mA – 750mA per supply

  • LED on indicator • PC board construction
- Dimensions: 5.1"L x 3.5"W x 2.0"H Wt.: 2.1 lbs.

**Includes:** Components and hardware

Part No. Description 10 20626EX JE215 power supply kit ......... \$22.95 \$20.49

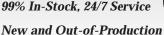
# DC Motor Speed **Control** 35-piece kit

- · Uses Pulse Width Modulation to vary the speed of a DC motor & maintain torque
- For motors up to 100VDC/5A max. • Dimensions: 3.6"L x 2.3"W x 1.2"H

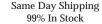
Requires: 5-16VDC supply (recommend P/N 114825EX, see website)

Part No.	Description	1	10
127829EX	Motor control kit	\$19.95	\$17.95

Low-Price Guarantee.







Robotic Kits

▲ 109-piece kit

Rotates left to right at the base @ 350° • Wt.: 4.5 lbs.

Robotic arm kit (unassembled) ..... \$74.95

Controller sftwr (DOS 4.2 & Up, WIN 95/98) 84.95

Line Tracking Robot

▲ 134-piece kit

**Robotic Arm Trainer** 

93

Controller

157366EX

159345EX

Price

Price

Price

\$59.95

\$49.95

OWI

Five Axes of Motion

Test your motor skills

as you build and control

the arm. This unit can be

commanded or instructed

wired controller with lights

wrist, and pivot sideways.

 Max. length outwards: 14.2 · Max. height upwards: 20.1"

· Max. lifting capacity: 4.6 oz.

· Elbow moving range @ 135

counter clockwise @ 340°

Requires: 4 D batteries (not included)

Description

Watch as this robot follows a black line you specify.

Utilizes infrared light to

detect the line and control direction. This educational kit

utilizes the same line follow

Description

Six crank motion legged robot

system to find obstacles and

infrared diode, photo diode,

Description

**High-Efficiency** 

**Robotic Servo** 

maneuvers itself around them.

This IR detection kit includes an

IC, 2 DC motors and all hardware.

• Dimensions: 12.0"L x 7.0"W x 3.5"H

utilizes an infrared light sensing

principle of many industrial robots.

• Dimensions: 12.0"L x 7.0"W x 3.5"H • Wt.: 1.1 lbs.

Obstacle Avoidance Robot

▲ 107-piece kit

Weight

1.2 lbs. .....

Line tracker kit .....

· Grip opens to 2" wide Wrist rotation clockwise or

Part No.

157366EX

159345EX

**OWI** 

Part No.

140839EX

Shoulder movement @ 120°

to grab, release, lift, lower, rotate

through its five-switch

# Power and Motor

# **Unipolar Stepper Motor Driver**

29-piece kit

- · Will drive unipolar stepper motors rated up to 6-30VDC @ 1.25A Onboard 5VDC regulator
- · Drives 5, 6 or 8 lead unipolar stepper motors
- Dimensions: 2.6"L x 1.9"W x 1.0"H

Part No. Description 139109EX Stepper motor kit ...... \$29.95 \$26.95

# DC to Pulse Width Modulator

40-piece kit

The circuit converts a DC voltage into a series of pulses, such that the pulse duration is directly proportional to the value of the DC voltage.

- PWM range: 0 to 100%
- PWM frequency: 100Hz to 5kHz (adjustable)
- Operating voltage: 8 to 35VDC
- · Min. consumption: 35mA
- · Max. output current: 6.5A
- · Efficiency: better than 90% at full load
- Adjustable sensitivity: 2.5 to 35VDC
- Dimensions: 3.3"L x 1.9"W x 1.8"H Weight: 0.5 lbs.

Descrition 120539EX K8004 modulator kit ...... \$22.95 \$20.49

# Receivers

# **National RF Code Lock Receivers**

velemen

▲ 75-piece kit

173235EX

117655FX

- · Use for car alarms, garage doors, door locks, etc.
- Over 8000 selectable codes · Use several
- transmitters with one receiver
- · Receivers feature relay output (10A change-over or pulse contact)
- Range: 100 ft.

#### 173235EX (2-channel) 117655EX (1-channel)

• 75 piece kit • Weight: 0.5 lbs.

Requires: 12-16VDC @ 100mA (recommend P/N 100095EX, see website)

Part No. Description 10 **173235EX** K6727 2-ch receiver (RF) kit .... **\$39.95** \$35.95 117655EX K6707A 1-ch receiver (RF) kit ... 29.95 26.99

#### More @ www.Jameco.com

# Distance and LED

velemen

# Parking Radar

55-piece kit

Parking in tight places can be difficult, but this unit can tell you when you have come within an adjustable preset distance of the object behind you.



- · Transmitter frequency: 40kHz
- Detection range: 5cm 1.5m; angle: 5°
- PCB size: base (4.9"L x 1.9"W) sensor (3.8"L x 1.1"W)

Requires: 10-15VDC @ 16mA max (recommend P/N 100095EX, see website) or auto power plug (recommend P/N 115001EX, see website)

Part No.	Descrition	Price
129120EX	K3502 parking radar kit	\$39.95

#### Senix **Distance Sensor Modules**

Sends out a sound wave 20 times per second and calculates the distance based on the time differential between send and receive signals. The distance is represented by an output voltage from 0 to 10VDC (P/N 134105EX) or RS-232 signal (P/N 151482EX).



151482FX

- · Sensing range: 4" to 60" Sensor diameter: 1.8"
- Board size: 2.8"L x 1.8"W x 0.9"H
- · One-year warranty

Requires: 15 to 24VDC @ 40mA (not included), recommend P/N 114825EX, see website

- Each 1VDC increment = 5.6" (e.g.: 1VDC output = 9.6")
- Output voltage: 0-10VDC · Weight: 0.2 lbs. **151482EX:** • RS-232 output · Weight: 1.0 lbs.

Includes: Disk and computer cable

Part No.	Description 1	10
134105EX	Sensor – voltage output \$159.95	\$143.95
151482EX	Sensor – RS-232 output 179.95	161.95

# IR LED Illuminator • 41-piece kit



- Improve low-light camcorder and CCD camera images without visible light
- 36 high powered infrared LEDs
- · At 24 the beam is approximately 3.5' across
- Dimension: 2" diameter

Requires: 12-15VDC power supply (recommend P/N

114825EX,	see website)	
Part No.	Description	1
157964EX	IR Illuminator kit	\$16.95





Ideal for



Part No.

Supply voltage: 4.8-6 volts Torque: 49 oz.-in. @ 4.8V

140821EX Spider kit

Speed: 16 seconds to 60°

16-Pitch Sprocket Set and Chain

Size: 0.8"W x 1.4"D x 1.6"H

Part No. Mfr. Cross Ref. **157067EX** 14500 ..... ..\$19.95 \$17.95

# 8-Pitch Gears and Gear Set

- · Works with DC motors with 0.08" shaft diameter · Heavy-duty plastic construction · Pitch: 0.125"
- Includes: 2 each of the following: T10, T20, T30, T40,

T50 and 10 bushings Part No. Mfr. Cross Ref. No. Description

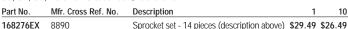
Gear set – 20 pieces (see description above) \$7.99



# 14-piece sprocket set includes:

1 each of the following: 8, 9, 10 teeth at %" bore size; 12, 15, 16, 18, 20, 24, 30, 32, 36, 40 and 48 teeth at 1/4" bore size

\$15.29





131801EX





\$7.29

# **Programming & Customizing PICmicro Microcontrollers**

#### Second Edition

McGraw-Hill Details the features of the PICmicro® and how to use these embedded chips to access and control many different devices. Shows what happens within the PICmicro® when an instruction is executed and how it interfaces with external devices. (1190 pages, 2001)



Includes: CD-ROM and PIC PCB

Part No.	Description	Price
183046EX	PICmicro Programming	\$49.95

# **PIC Microcontroller Project Book**

#### Comprehensive Beginner's Guide

McGraw-Hill Provides you with hands-on directions for putting Microchip's RISC-based chips with up to 8k of memory to work. Starting with simple projects and experiments, this book leads you gradually into sophisticated programming techniques. Provides you guidance on getting the equipment you need and programming your chip. (203 pages, 2000)

Part No.	Description	Price
174650EX	PIC Beginner's Guide	\$29.95

# **PIC BASIC Programming** and Projects

Newnes Publications The BASIC language, as used by the most popular PIC compilers, is introduced from square one, with simple code used to illustrate each of the most commonly used instructions. PIC BASIC is the simplest and quickest way to get up and running - designing and building circuits using a microcontroller.



(210 pages,	2001) • Size: 6.1" x 9.2"	<ul><li>Weight: 0.8 lbs.</li></ul>
Part No.	Description	Price
200168EX	PIC BASIC Programming .	\$34.95

# Serial Communications

#### Serial Communications PIC Applications

Square 1 Publishing Topics such as asynchronous serial communications, RŠ242 standard, ASCII character code, bit-bang asynchronous communications, synchronous serial communications to name a few are covered in this book as well as tool box



modules and applications. (566 pages, 2002) • Size: 8.6" x 11.0" • Weight: 3.5 lbs.

Part No.	Description	Price
210497EX	Serial Communications	\$49.95

# TTL Logic Data Book

Texas Instruments Contains specifications and technical information on a broad line of TTL integrated circuits including Schottky TTL circuits. (1240 pages, 1988)



Part No. 88225FX TTL Logic Data Book ......\$34.95

# **Electric Motors and Control Techniques**

#### TAB Publishing

Explains how different types of motors operate, and how electronic control devices can be used to improve efficiency in a wide range of applications. (294 pages, 1994)



Part No.	Description	Price
137162EX	Electric Motors & Control	\$24.95

#### Robot Builder's Bonanza

#### TAB Publishing

This fascinating guide offers you a complete, unique collection of tested and proven project modules that you can mix and match to create an almost endless variety of highly intelligent and workable robot creatures. (753 pages, 2001)



# **Robot Builder's Source Book**

#### McGraw-Hill

Everything you need to find and acquire common and uncommon robotic parts and supplies. Jameco and over 2500 mail order suppliers and other sources, including local and international businesses all cross-referenced and categorized to make your search quick and easy. (711 pages, 2003)



# **Electric Motors and Serial Port Complete**

#### Lakeview Research

Includes: 3.5" diskette

RS-232 and RS-485 are the most versatile, inexpensive interfaces for linking, but the hardware and programming are often misunderstood. This book provides you with everything you need to design, program, install and troubleshoot the links you set up (306 pages, 1998)



Part No. Description 154771EX Serial Port Complete ......\$39.95

# Making Your Own **Printed Circuit Board Book**

JV Enterprises No darkroom or special equipment needed. Shows steps for drilling and shaping your printed circuit board and the materials you will need. (91 pages)

• Size: 8.5" x 11" · Weight: 0.5 lbs.



# **Complete Embedded Ethernet and Internet Book**

Lakeview Research A guide to designing and programming embedded systems to communicate in local Ethernet networks and on the Internet. This book is organized for anyone who wants to design, program, or learn about networking with embedded



systems. Topics include networking basics, hardware options in building a network, using internet protocol in local and internet communications, serving web pages, etc. (482 pages, 2003)

Part No.	Description	Price
236945EX	IC Design Projects Book .	\$44.95

# **Everything You Need To Develop Custom USB Peripherals Book**

Lakeview (2nd Edition) This USB Complete book provides an easy-to-use interface for computer peripherals. The book covers topics such as what USB can do, transfer types, chip choices, what's inside a USB controller, writing firmware, how the



Part No.	Description	Price
171900EX	Complete USB Book	\$49.95

# **Practical Electronics Book for Inventors**

McGraw-Hill Provides information needed for practical use in a format you can understand. With hand-drawn illustrations, this learn-as-you-go guide shows you what a particular device does, looks like and compares with other similar devices. Provides an easy-to-understand overview of basic



components, resistors, diodes, capacitors, inductors, rectifiers, amplifiers, voltage regulators, discrete passive and active devices and so on. (604 pages, 2000)

Part No.	Description	Price
174529EX	Practical Electronics	\$39.95

# **How to Test Almost Everything Electronic**

TAB Publishing Filled with easy-tofollow instructions on how to troubleshoot all types of electronic systems. Learn the many uses of electronic tools, test equipment and troubleshooting techniques using flowcharts. (326 pages, 1993)



• Size: 7.4" x 9.3" • Weight: 1.3 lbs.

Part No.	Description	Price
126199EX	How to Test Everything	\$17.95

#### **Electronic Pocket Reference**

#### Third Edition

McGraw-Hill Publishing A pocket reference manual that provides definitions, passive component equations and color coding, parameters of standard semiconductors, linear circuits, filters, power

supply and regulation, electronic measurement and mathematical tables and formulas. (529 pages, 2000)

Part No.	Description	Price
174481FX	Electronics Pocket Ref	\$29.95





# **Bushnell binoculars for less** than \$20? Seeing is believing!

Convenient, portable and simple to use, let these compact, factory remanufactured binoculars bring you closer to the action. Insta®-Focus delivers crystal-clear, 12X images while you view. Fully coated lenses and tough rubber armor promise many seasons of trouble-free use. Includes carrying case and neck strap.

Part No.	Description	Price
235571EX	Bushnell sport binoculars	\$12.95

# A zoom with a view.

Whether you're a sports fan, birdwatcher or amateur PI, these 10x42 binoculars put you right in the middle of the action. They're water-proof and fog-proof for clear, all-weather viewing, and tough rubber armor helps withstand the rigors of all-purpose use. Plus, the zoom-in feature lets you easily adjust for the perfect view. Refurbished to like-new factory specs.

Description Part No.

236021EX Bausch & lomb zoom binoculars .....

# Price

# Mini cooler/warmer works almost anywhere!



Don't bother with the nasty office fridge. Keep a six-pack, your lunch, a snack, or anything else







cool and at hand; and at optimal refreshment temperature. Our handy, stylish and convenient mini fridge and warmer is hightech and CFC-free. Cools 20-25°F from the ambient temperature or keeps food warm at up to a max of 154°F. The fridge handles a big 4-liter capacity to keep an ample supply of provisions fresh and ready to serve. Auto-shutoff and restart prevents problems.

P	art No.	Description	Price
2	19310EX	Mini cooler & warmer	\$59.95

# The 10-second test that could prevent a lifetime of regret!

No one gets behind the wheel intending to wreck lives. But each year thousands do just that when they misjudge the amount of alcohol in their system. Now there's a simple way to make sure it doesn't happen to you or those you care about.\* Alc Alert quickly and discreetly checks blood alcohol level in less than 10 seconds. Just blow as if cooling soup on a spoon. At the sound of 3 beeps, stop and read the results. It's that easy. Buy one for yourself. Give them to everyone you cherish. Makes a thoughtful gift. Party guests actually have fun testing themselves. Gas sensor digital technology measures blood alcohol level (BAC) from .0% to .12%.

The backlit display can be read in a dark car. Runs on 2 AAA batteries (included). Description Size



\* No device, no matter how sensitive, can substitute for common sense. If you think your ability to drive may be impaired even slightly, no matter what the test results show-don't drive.



Just breath and get results in seconds.

#### Attach it right to your keychain



# Greater safety on your key ring!

Everyone should have one ofthese handy checkers on every set of keys. Just blow into the device for 12 seconds, and special crystals inside will turn blue if your blood alcohol level is .08% or above. Infinite shelf life and convenient refill cartridges mean it's always ready to help you stay safe behind the wheel.

Part No.	Description	Price
237294EX	Breathalyzer keychains (pack of 2)	Was \$24.95 \$15.99
237307EX	Breathalyzer refills (pack of 5)	Was \$19.95 14.39

# See in total darkness. Infrared Monocular gives you an edge.

Like the infrared goggles worn by the U.S. military. Bushnell Night Vision lets vou see them. but they can't see you.

See in the dark without disturbing or alerting others. Night Vision Monocular uses militarygrade image intensification technology to let you see clearly for up to 300 feet, even in pitch blackness. It's perfect for campers, hunters, hikers and wildlife enthusiasts... essential for surveillance and search-and-rescue work. Night Vision collects and amplifies the minute amount of light that exists even in what we perceive as pitch black. It converts the light into electrons that strike a phosphor screen, producing a detailed image just the way your TV does. High-speed f1.5 objective lens with 2.4X image magnification. FOV of 79 feet at 100 yards. Weighs 17 oz. with 2 AA batteries (included). Comes with roomy padded carry case with adjustable shoulder strap. 1-year manufacturer's warranty.

Part No. Description 219694EX Night vision monocular & case .. \$199.00

H<sub>2</sub>0-proof binoculars offer ringside seating through

rain, sea and even spilled beer.

The only binoculars you need to own, they'll take you through rain, sleet, snow, & wild weekends.

A great gift idea for the outdoor or concert e nthusiast at a fantastic price. These 8X compact Bushnell binoculars are completely impervious to wet weather, boating activities, water sports and even the occasional sailing beverage. And at this price, they're a tremendous value even if you live in the Sahara. Rubber armoring and O-rings seal out moisture. Nitrogen purging eliminates fogging, even in wet weather. Multi-coated optics ensure durability, clarity and reduced glare. Roll-down eyecups accommodate glasses. Offers a center focus, 25mm objective lens, and 370' field-of-view at 1000 yards.

Includes: Carry case with belt loop, neck strap and lens cloth.

Part No. Description 220409EX Bushnell H2O binoculars Was \$34.95 \$24.95



# 3-digit tire pressure guage ensures safer driving.

Maintain manufacturer's suggested tire pressure level for safer driving with this digital tire pressure gauge. Quick and simple to use, it provides accurate P.S.I. or



bar readings of tire pressure that helps reduce tire wear and improve fuel consumption. Complete with 2 x LR-44 batteries, the average battey life of this tire pressure gauge is 3,000 measurements. Buy 3 SAVE \$6.00

Part No.	Description	1	3
237331EX	Digital tire pressure gauge	\$6.99	\$4.99



# Open virtually any garage door, while barely opening your wallet.

At this price you can afford to give one to each of the kids, and put one

conveniently in each car! Programmable for virtually any existing garage door opener (see below), this one-button wonder augments your current set of garage-door remotes. A long-lasting, replaceable 12-volt battery is included.

Works with the following major brands and models: Genie #AR85 Series, Sears, Stanley, Chamberlain, Craftsman, Linear, Moore-O-Matic, Multi-Code, Wayne Dalton, Lift-Master and Master Mechanic.

Part No.	Description	Price
235539EX	Universal garage door opener	. \$19.95

**Expect the unexpected with** this road-ready kit.



Don't leave home without it!

One of these kits should have a place in every vehicle you own. In a road emergency, you'll have a powerful flashlight and a full set of high-quality tools, all ready for repair work. Plus, bright safety flashers will let other drivers know to steer clear, and alert emergency vehicles to your location. Plug-in powered by your car's 12-volt battery, or by a back-up set of C batteries.

Part No.	Description	Price
235109EX	Auto emergency kit Was \$1	9.95 \$13.95

# Kiss flat-tire worries goodbye!

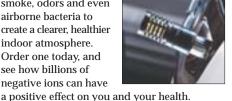
With these two roadside helpers in your trunk, you can finally have portable peace of mind. Both the powerful impact wrench and the mini air compressor plug directly into the 12-volt lighter socket in your car. With its full set of bits, sockets and adaptors, the wrench will loosen the crankiest lug nuts in short order. The air compressor will keep your tires, including the spare, pumped for optimal performance, and can keep bike tires, balls, camping beds and pool/beach inflatables in top form, as well. Part No. Description

235441EX Wrench with air compressor ..... Was \$24.95 \$19.95



# Fresh air in the worst traffic.

If you think the air is bad outside during your commute, it could be even worse inside your car. With the windows rolled up, your in-car environment may be concentrating the pollutants. Chances are, you and your car need a healthy shot of pure, fresh ionized air. Simply plug this compact, self-contained device into your cigarette lighter and it goes to smoke, odors and even airborne bacteria to create a clearer, healthier indoor atmosphere. Order one today, and see how billions of negative ions can have



Part No. Description

219352FX Auto air purifier & ionizer ..... \$19.95 work immediately, removing dust, cigarette

Get accurate weather and navigational information and arrive faster without unpleasant surprises.



Mounts easily to your car windshield.



# Never get lost or surprised by a storm again.

Mount this precision compass and weather station on your car windshield and hit the road knowing not just where you're heading, but what you're heading into. The holographic LCD panel displays your direction, inside and outside temperature, barometric pressure, altitude, and a weather forecast. If outside temperatures dip to 35°, a flashing "Ice Alert" warns you of skid conditions. Set a bearing

point, and the compass warns if you veer offcourse. Activates and deactivates automatically. Backlight turns on automatically after dark. Includes suction mounting bracket, 3V long-life lithium battery and 12V DC adapter (for emergency use with car lighter outlet). 2-year manufacturer's warranty.

Part No.	Description	Was \$119.95 Price
222316EX	Compass & weath	er forecaster \$99.95

Military-precision compass goes from traffic to trail automatically. Go from backroads to backpacking with

confidence. The All-in-One Compass switches modes automatically.

Ingenious design makes the All-in-One Compass two precision navigational instruments in one. In the cradle, it reads direction vertically for driving. Lifted out and held flat, it automatically switches to handheld mode for hiking. Holographic display is easy to read in bright or low light. Pushbutton backlight lets you read in pitch blackness. Runs on two AAA batteries or 12-volt car adapter, both included. Auto turn-off conserves battery life.

Weight 2.5"L x 2.5"W x 1"H Hikers and drivers all-in-one compass 0.72 lbs. Was \$54.94 \$44



# Water alarm prevents costly damage.



little unit alerts

users within hearing range when water has reached it's desired level.

Apollo 11

Coin & Pen Set

Be prepared for leaks or overflows in the bath, kitchen, laundry, computer room, just about anywhere there is a potential for leaks. Just place the sensor at the lowest point of the surface where water collects. The alarm will sound if water bridges between the two contacts. Ideal for unattended filling of tubs, pools and/or spas. Use the suction cup to attach the sensor to any smooth vertical surface. The buzzer will sound when the water reaches both metal contacts on the sensor.

Part No.	Description	Price
239370EX	Water leak alarm	\$12.99

Writes anywhere, 🦼 even underwater!



landing —a Fisher Space

Pen was there. The Triple Action Pen allows your choice of black or red ink, or a PDA stylus; all in one. Use your own pen to write anywhere using Fisher Space Pen Refills. Mont Blanc and Cross pens use the specific refills listed. Roller balls by Parker, Waterman, Pelikan, Lamy, Rotring, and Sheaffer use Fisher Space Pen Refills with the included adapters.

Part No.	Description	Price
219395EX	Chrome shuttle pen Was \$19.99	\$14.95
219408EX	Triple action pen Was \$27.99	19.95
219387EX	Apollo 11 pen & coin Was \$49.95	39.95
Pen Refills	S	
219483EX	Mont Blanc med. black	2.89
219475EX	Mont Blanc med. blue	2.89
219467EX	Cross medium black	2.89
219459EX	Cross medium blue	2.89
219441EX	Fisher space med. black	2.89
219416EX	Fisher space med. blue	3.49
219424EX	Fisher space med. red	2.89
219432EX	Fisher space med. green	2.89

# Zip open your mail with the greatest of ease!



Open your important correspondence in style with this handy little cordless wonder. Paper cuts and torn contents are a thing of the past; just place the edge of each envelope in the selffeeding slot, and your letters of all shapes and sizes glide through to be effortlessly, professionally and safely opened. No efficient desk should be without one!

Part No.	Description	Price
235475EX	Handheld letter opener	\$9.95

# Bargain-priced night-time visibility from First Alert™





Emits a soft amber glow

Now you can get four night lights for under ten bucks! These handy little lights do one important thing, and they do it very well: they come on when it's dark, and go off when it's not, safely and reliably. Just plug them into outlets in hallways, your workshop or the children's rooms and you'll always have light, right where you need it. At this price, you can enjoy "night vision" throughout your home!

Part No.	Description	Price
235037EX	4 automatic night lights	Was \$9.95 \$5.95

# **Fellowes Premium Confetti-Cut** Personal Shredder





Shredded pieces (Confetti-cut)

When it's time to discard sensitive memos, bank statements, accounting records or other confidential business materials, you want to rest assured that they're gone for good. The PS60C-2 features faster throughput, greater

capacity and a finer cut so your documents will disappear in short order. Do not let prying eyes poach business records. Let this model's confetti-cutting power turn that stack of confidential paperwork into a handful of scrambled dregs with shredded ease.

Part No. Description Was \$49.95 Price 219176EX Confetti-cut shredder (refurbished) ..... \$39.95

# **Fellowes Strip-Cut Shredder**





Protect yourself from prying eyes and "dumpster divers'

with a personal shredder that's packed with features. The P500-2 is designed to go anywhere you need it. Auto-start and stop means you can feed in up to 7 sheets at a time (staples, paper clips and all!) with one-handed ease; no fumbling for a switch. And at this price, you can turn every wastebasket in your home or office into a maximum security receptacle.

Part No.	Description	Price
219184EX	Personal strip-cut shredder	\$9.95

Find more products @ www.Jameco.com

# **Trouble free corner touch lights** right where you need it!

Banish dark corners in your drawers, closets or workshop where you always need more light. This set of three corner ready touch lights mount easily, and they're cordless, so they're all help and no hassle. Just click-on, click-off, and you'll always be able to see what you've been missing! Four AA batteries (not included) provide many hours of light.

Part No.	Description		1	4
239345EX	Three corner touch lights	Was \$12.95	\$10.49	\$9.45
Part No.	Description			Price
249210EX	AA batteries (4-pack)			\$2.56





Drawer

Closet



#### **PAYMENT OPTIONS**

#### Credit Card/Check Cards

We accept VISA, MasterCard, American Express and Discover. No surcharge. Your account will not be charged until your order is shipped. When ordering, please advise name on card and credit card billing address.

#### Check or Money Order

You may pay by check or money order in U.S. funds, drawn on a U.S. bank.

#### **Open Account**

It is easy to open an account with Jameco. Contact us for obtaining open account status.

#### C.O.D.

Personal checks are accepted. Please add \$7.00 per C.O.D. order. Include the name and address of your bank and your account number.

#### International Orders

All foreign orders must be prepaid with a credit card (see approved credit cards above), wire transfer, traveler's check, cashier's check or money order drawn on a U.S. bank in U.S. funds only. Please do not send cash. Jameco cannot accept letters of credit as a form of payment.

E-mail: international@Jameco.com.

#### **SERVICES**

#### 30-Day Money Back Guarantee

If for any reason you are not completely satisfied with your purchase, simply return the product, in its original packaging, within 30 days for a refund, credit or exchange. Parts returned due to customer ordering error may be subject to a restock fee. Call our customer service department at 1-800-536-4316 or visit www.Jameco.com to request an RMA#. It should appear clearly on the outside of the box. Returns without an RMA# will not be accepted, and no freight collect packages will be accepted. A completed Jameco customer service form, located on the back of the packing slip, must be included with your return. We're sorry, but books, kits, software, grab bags and special orders cannot be returned. Special orders consist of products sold at an OEM quantity discount or products not listed in the Jameco catalog.

#### Jameco Warranty

Jameco warrants all merchandise against defects in material or workmanship for a period of 90 days from the original purchase date unless otherwise stated in writing by Jameco. If Jameco receives the product considered to be defective within this warranty period and the product is determined to be defective, Jameco will, at its sole option and discretion, either repair or replace the product. The foregoing is your sole and exclusive remedy and states Jameco's entire liability arising out of this warranty. [However, Jameco will transfer to customer whatever transferable warranties and indemnities Jameco receives from the manufacturer of the products. Any claims arising from such manufacturer's warranties shall be the sole responsibility of the manufacturer and not of Jameco.] Moreover, Jameco's limited warranty is void if the damage or defect has resulted from improper customer assembly, failure by customer to follow instruction, product modification, negligent or improper operation, accident, abuse or misapplication. Products returned to Jameco pursuant to this warranty must be returned to Jameco prepaid.

#### No Other Warranties

The limited warranty above is exclusive and in lieu of all other conditions and warranties for the products and documentation. Jameco makes no other conditions or warranties, express, implied, statutory or otherwise, and expressly disclaims all other conditions and warranties, including but not limited to, implied conditions or warranties of merchantability, fitness for a particular purpose, and non-infringement of the products.

#### Limitation of Liability

Jameco shall not be liable for any incidental, special or consequential damages for breach of any warranty, expressed or implied, directly or indirectly arising out of Jameco's sale of merchandise, including any failure to deliver any merchandise, or arising out of customer's installation or use, whether proper or improper, of the product, separately or in combination with other equipment, or from any other cause. Products sold by Jameco are not authorized for use as critical components in life support devices or systems.

#### 5 EASY WAYS TO ORDER

Telephone: Toll-Free 24 hours a day! 1.800.455.6119



1.800.455.6119 International orders, call 1.650.592.8097

Toll-Free FAX: US/Canada: 1·800·237·6948 Brazil: 000·817·455·6119 Columbia: 980·9·136748 Indonesia: 1·803·015·237·6948 Mexico: 001·800·593·1449



Mexico: 001·800·593·1449 New Zealand: 080·044·0470 Other Countries: 1·650·592·2503

Online: <a href="http://www.Jameco.com">http://www.Jameco.com</a>



On-line catalog! Our complete offering of over 11,000 products searchable on the Jameco website!



E-mail your order to: <a href="mailto:sales@Jameco.com">sales@Jameco.com</a> or fill out the order form (previous page) and mail it to us.



Visit Jameco at 1355 Shoreway Rd., Belmont, CA. Will-call office hours are 8:00 a.m.– 5:00 p.m. Monday – Friday.

#### **CONTACT INFORMATION**

The following services are available at 1-650-592-8097 Monday – Friday from 6:30 a.m. – 5:00 p.m. PST or via e-mail:

- International Sales (international@Jameco.com)
- Customer Service (custservice@Jameco.com)
- Credit Department (credit@Jameco.com)
- Technical Support (<u>tech@Jameco.com</u>)

#### Toll-Free Hotline!

Please call us at 1-800-455-6119.

#### A Nuestros Clientes en

La Republica Mexicana: Si usted requiere tratar en Espanol y adquirir nuestros productos facturados L.A.B. Cd. De Mexico (libres de Aduana) y enviados al interior del pais via Estafeta, contacte con nuestro Representante y Distribuidor exclusivo;

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Los demas paises de Latinoamerica: Ya pronto tendremos servicio en su Region. Si usted tiene alguna duda o comentario respecto a los servicios de Jameco, contacte con la empresa arriba mencionada en la Ciudad de Mexico, ellos le pueden ayudar.

#### **PRICES**

Prices are effective 7-12-04. In the unlikely event you find a lower price in a printed catalog or magazine, simply call us with the details at the time of purchase. We'll match any price above our cost. Prices and discounts are subject to change without notice. We are not responsible for any typographical errors in this catalog. Photos are representative; product appearance may vary.

#### **ONLINE INFORMATION**

Get answers to frequently asked questions on the Jameco website at:

http://www.Jameco.com

#### SHIPPING INFORMATION



Guaranteed Delivery Time for UPS Ground (Business Days)

1 day
2 days
3 days
4 days
5 days
6 days

Orders received Mon.-Fri. by 6:00 p.m. Eastern Standard Time will be shipped the same day. Orders received Saturday and Sunday will ship the following Monday (except on holidays). If we are unable to fill your order on the day received, we will send you a gift certificate worth \$5.00 towards your next Jameco purchase. This offer does not apply to orders waiting for credit approval or backordered items.

Options and Rates\*







Shipping delivery times are based on working days.

#### **Ground Service**

Up to 6 working days for commercial address (up to 9 working days for residential). Guaranteed delivery times may vary depending on zip code. \$6.95 for 1st 2 lbs.; \$0.79 for each additional lb.

#### 2-Day Air Service

\$12.49 for 1st 2 lbs.; \$1.59 for each additional lb.

#### Next Day Air Service

- \$22.95 for AM delivery for 1st 2 lbs.; \$1.99 for each additional lb.
- \$16.95 for afternoon delivery for 1st 2 lbs.; \$1.99 for each additional lb.

#### Priority Mail (USPS)

\$4.95 for 1st lb.; \$1.99 for each additional lb. Order must be placed before 5:00 p.m. Eastern Standard Time to ship same day. Jameco reserves the right to rebill shipping surcharges for customer misaddressed packages

\* The above rates apply to single box shipments that are less than 50 lbs. Please call for shipping quote on packages greater than 50 lbs.

#### International Shipping & Handling

Shipping is via courier or postal service, depending on your preference, insurance availability, and the size and weight of your package. Jameco will apply actual shipping charges with a nominal handling charge on all foreign orders. For mail-in customers, please include 25% for shipping charges or call for a shipping quotation. All returns that meet postal requirements must be sent prepaid via air parcel post. All courier shipments to Canada and Mexico require a certificate of origin. Jameco will provide a certificate of origin for a \$25 processing fee.

#### POLICIES

#### **Confirming Orders**

Please do not send confirming orders. If company policy necessitates a confirming order, please mark "CONFIRMING" boldly on the first page of the order.

#### No Minimum Order

A \$5.00 processing fee will be added to orders under \$20.00.



# See previous page for Ordering Information

# Fax 1.800.237.6948 Order 24 hours/7 days a week!

Jameco, 1355 Shoreway Road, Belmont, CA 94002 Call: 1·800·455·6119 International TEL: 1·650·592·8097 FAX: 1·650·592·2503

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# Clip an animated billboard on your shirt!

The FlashTag is an eye-catching, customizable name tag with scrolling LED messaging that you can program yourself. The FlashTag is perfect for retailers/ sales people, restaurants, trade shows, fund raising events, and the list goes on and on. Approximately the size of a credit card, the FlashTag has 7 different speed settings, scrolls from left to right and it's bright red LEDs will ensure your messages are noticed, especially in a crowd.

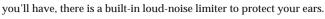
Part No.	Description	Price
261673EX	Scrolling message name tag w/ serial programmer	\$69.95
262060EX	Additional name tag	55.95





# Super hearing at a super-low price!

You'll be absolutely amazed at the distant sounds you can pick up with the Big Ear! Listen in on dugout conversations at baseball games, tune into bird calls like you've never heard them before, or play "007" spy games. While there's no limit to the fun



Part No. Description 



Tune into nature.



Get the scoop on the game.

# Seamlessly interrupt your modem to take calls.



Bright LEDs immediately alert you to an incoming caller. Just pick up the phone, and you're seamlessly connected to your friend or colleague. When your conversation is finished, simply hang up and your modem takes over to resume your online session. Works with fax machines too! In addition to saving missed calls, this convenient little box will save you money, too. No expensive additional line is needed, and you can avoid annoying monthly charges for similar services from your internet service provider. Installation is a breeze. An A/C adaptor is included for power, and with your existing call-waiting service, you'll be ready to attain a new level of peace of mind, right out of the box.

Part No.	Description		Price
234974EX	Internet call waiting alert	Was \$44.95	\$34.95

# Three of the most useful features you'll ever add to your phone line!

Reduce calls from pesky telemarketers.

Want to pick up important incoming calls without disrupting your modem connection? Or do you want to avoid picking up annoying calls from telemarketers or fax machines? This handy switch emits tones making pesky telemarketers think you've disconnected your phone line and routes fax calls directly to your fax machine without allowing your phone to ring.



And in addition, you can pick up calls while your modem is on line without needing a second phone line!

Part No.	Description	Price
242780EX	Automatic fax switch	. \$99.95

#### Refer a Friend

Are you tired of loaning your latest copy of the Jameco catalog to a friend or business associate? If they can't take a hint just visit our website at: www.Jameco.com/CatReferral. We'd be happy to send them a catalog too!



# Wireless weather station does everything but provide a scarf or umbrella.

This multi-function digital weather station is a great gift for the weatherwatcher who likes to know everything—including the future and the temperature "down below." It's an indoor/outdoor wireless thermometer, graphical weather forecaster, lighted alarm clock with snooze alarm, day/date calendar, audible temperature alarm. It's even a pool and pond thermometer.

The outdoor sensor transmits up to 100' through walls and fences. Slide the sensor out of its bracket, plug in the 10' waterproof probe, and check the temperature of your pool or pond. A flashing storm alert warns of severe weather ahead. Programmable audible high/low temperature alerts help prevent household catastrophes. Readings displayed in C° or F°. Base uses 2 AA batteries (included). Remote uses 2 AAA batteries (included).

This weather station can wake you when you're sleeping, warn you when temperatures reach danger zones, and tell you when your tropical fish are shivering.



Weather Station		Remote		
art No.	Description		Price	
27117EX	Wireless weather station		\$49.95	

# Screen your calls without leaving your chair!

Just like an ordinary Caller-ID box, this nextgeneration device will announce the number (in English or Spanish!) of the incoming call in a clear, pleasant voice. You can even record up to 50 custom announcements for specific callers, along with

two personalized greetings for your special friends or loved ones who call often.

Part No. Description 234966EX Voice announce caller ID box .....



# Find your way with this digital compass and stopwatch combo.

This amazing digital compass will point you in the direction of high

adventure. With a 20 of accuracy. It's smart enough to know exactly where you're heading, anywhere in the world, anytime. And speaking of time, an integrated stopwatch, timer and 12/24 hour clock are also included in this compact, water-resistant little wonder. As a primary guide or as a backup to your GPS, you'd be lost without it!

Part No.	Description	Price
236793FX	Digital compass & stopwatch	\$19.95

# **Advanced Toddler Robot Kit**

Walking robots have mechanical and software interdependencies that require in-depth examples and explanation. The Advanced Robotics text is an introduction to the Toddler robot's basic movements. Students using the Toddler robot will learn advanced embedded programming with BASIC, efficient code development, sensor feedback, and general control. Because

Includes: 155-page Advanced Robotics text in the Stamps in Class style and the 351-page BASIC Stamp Manual

of the number of possible movements, we

consider the Toddler to be appropriate for

those aged 14 and above.

Part No.	Paralla	x No.	10
282837EX	27311	\$248.95	\$236.49

More @ www.Jameco.com

# Retro-style record player with 21st century technology!

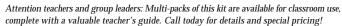
Dust off those old LPs and 45s, and get ready for a nostalgic trip to entertainment yesteryear! Lift the cover and spin your vinyl, or pop the top and play your favorite CDs in the same self-contained, stylish table-top package. Plus, a sensitive AM/FM tuner, complete with oldschool controls, pulls in your favorite talk and music stations. Makes a great gift for the "cat's meow" in your life, or an elegant addition to any room's décor!

Part No.	Description	Price
285472EX	Turntable CD/record player w/ tuner	\$169.95



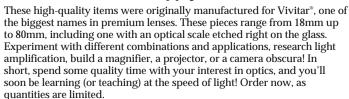
# Teach kids the history of "instant messaging", circa 1844!

Junior scientists can walk in the footsteps of Samuel Morse, inventor of the telegraph. His nifty invention changed the 19th century as much as the telephone did the 20th century and as the internet is changing the 21st. With this kit, they'll wind coils (with the included arbor, to ensure success), tinker with electromagnetism and magnetic fields, build a buzzer and a relay, dabble in Morse Code and learn about the scientific methods used by great inventors. And when they're done, they'll be the proud owners of a working model telegraph system! Superb documentation leads builders through the entire educational experience, step-by-step.



Part No.	Description	Kit Pieces	Difficulty Level	Price
285624EX	Telegraph kit	15	Beginner	\$54.95

# Magnify your interest in optics with these limited-supply lenses!



Part No.	Description	Dioptic	Material	Price
285739EX	Plano, 27.9mm	16.5x	Glass	\$1.95
285798EX	Plano, 80.2mm	5x	Acrylic	2.95
285721EX	Double, 18.9mm	20x	Glass	1.79
285763EX	Double, 78.0mm	15x	Glass	3.95
285712EX	Optical scale, 18.0mm	_	Glass	1.95

# **Boe-Bot Full Kit**

Now with Robotics text v2.0! The new text includes 41 activities for the Boe-Bot and PBASIC 2.5 source code support. The Boe-Bot's flexibility stems from the fact that it's a rolling Board of Education. The Board of Education (and BS2-IC) may be removed to be used as your platform for the other Stamps in Class curriculum. The robot may be programmed to follow a line, solve a maze, follow light, or communicate with another robot by following the instruction of the Robotics text. Requires 4AA batteries (not included).

Part No.	Parallax No.	1	10
282933EX	28132	\$228.95	\$217.49





# **Basic Analog & Digital** Parts & Text V1.2

Covers the essentials of 8-bit A/D & D/A conversion using a BASIC Stamp. Introduces PBASIC commands for A/D conversion with





resistor/capacitor circuits, interfacing an ADC0831 8-bit A/D converter, scaling analog outputs into meaningful digital values, analyzing time-varying signals and using PWM as analog output.

Part No.	Parallax No.	1	10
282950EX	28155	\$43.95	\$39.45







# Flashing Pumpkin Kit.

No need to carve a pumpkin this Halloween! Simply solder the 25 brightcolored LEDs onto the pumpkin-shaped circuit board and you have a flashing pumpkin. A perfect display for the office or home window, or for children to bring along during trick or treat.

- · 25 bright LEDs
- · Random flash effect simulates flickering candle
- 1 extra high intensity yellow LED illuminates the pumpkin face
- On/Off switch Experience level: intermediate

71 Piece Kit

Power requirements: 9V battery

Part No.	Description	Size	Price
236081EX	Flashing pumpkin kit	3.2"H x 4.0"W x 1.3"D	\$9.99

# StealthTenna™ Antenna

Optimized for receiving HDTV/Digital and current analog signals, the StealthTenna<sup>TM</sup> offers the performance and aesthetics consumers demand for their ever-changing reception needs. Antenna assembles easily for do-it-yourself installation. The StealthTenna<sup>TM</sup> is the perfect complement to DBS satellite



systems for receiving local broadcast not offered from satellite. The antenna mounts under eaves with it's rear-mounting feature or may be mounted in traditional roof, chimney, wall and attic configurations. For additional signal gain, StealthTenna<sup>TM</sup> can be equipped with an optional amplifier (listed below) that fits easily inside the antenna housing. The amplifier utilizes separate circuitry for VHF and UHF amplification, providing a gain of 15 dB. Mounts inside antenna housing and has split band amplification.

Signal gain: 15dB UHF; 15dB VHF/FM
 Power required: 12 to 22VDC

See pages 62 & 63 for our complete selection of Channel Master products!

Part No.	Prod. No.	Description  StealthTenna™	Price Price
285843EX	3010	StealthTenna™	\$68.95
285982EX	3038	Optional amp	48.95

# It's a Summer Extravaganza!

We have lowered prices, offering you savings of 15-46%. Be sure to thumb through our catalog and look for these specially marked prices.



Kids of all ages love to learn (

about hovercraft!

This super kit is fun to build and a "blast" to run, but there's a bonus: education!
Through the kit's curriculum (available online), budding scientists and engineers will learn principles of electricity and circuits, propellers, conversion of energy and other core concepts. And at the end of the learning process, they'll have a cool, battery-powered hovering vehicle that



More science kits are on the way in upcoming catalogs, so watch this space for new offerings.

can glide over any smooth surface, even water!

art No.	Description	Price
85641EX	Hovercraft kit	\$21.79

# **Electromagnetic Radiation Meter**

Electromagnetic radiation is all around us, some of it not so friendly; but until now there's never been an easier, more portable device to detect and measure it. Whether you're concerned about your kid's playground near the power station, the laboratory, microwave oven emissions, or searching for clandestine surveillance devices; the ZAP Checker can give you a new measure of peace of mind. Its portability and multiple settings allow you to search



out EMR whenever and wherever you want, from your home or office environments to hotel suites and conference rooms. Range is from 10 MHz to 4.5GHz.

Part No.	Description	Price
217808EX	ZAP checker	\$129.95

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